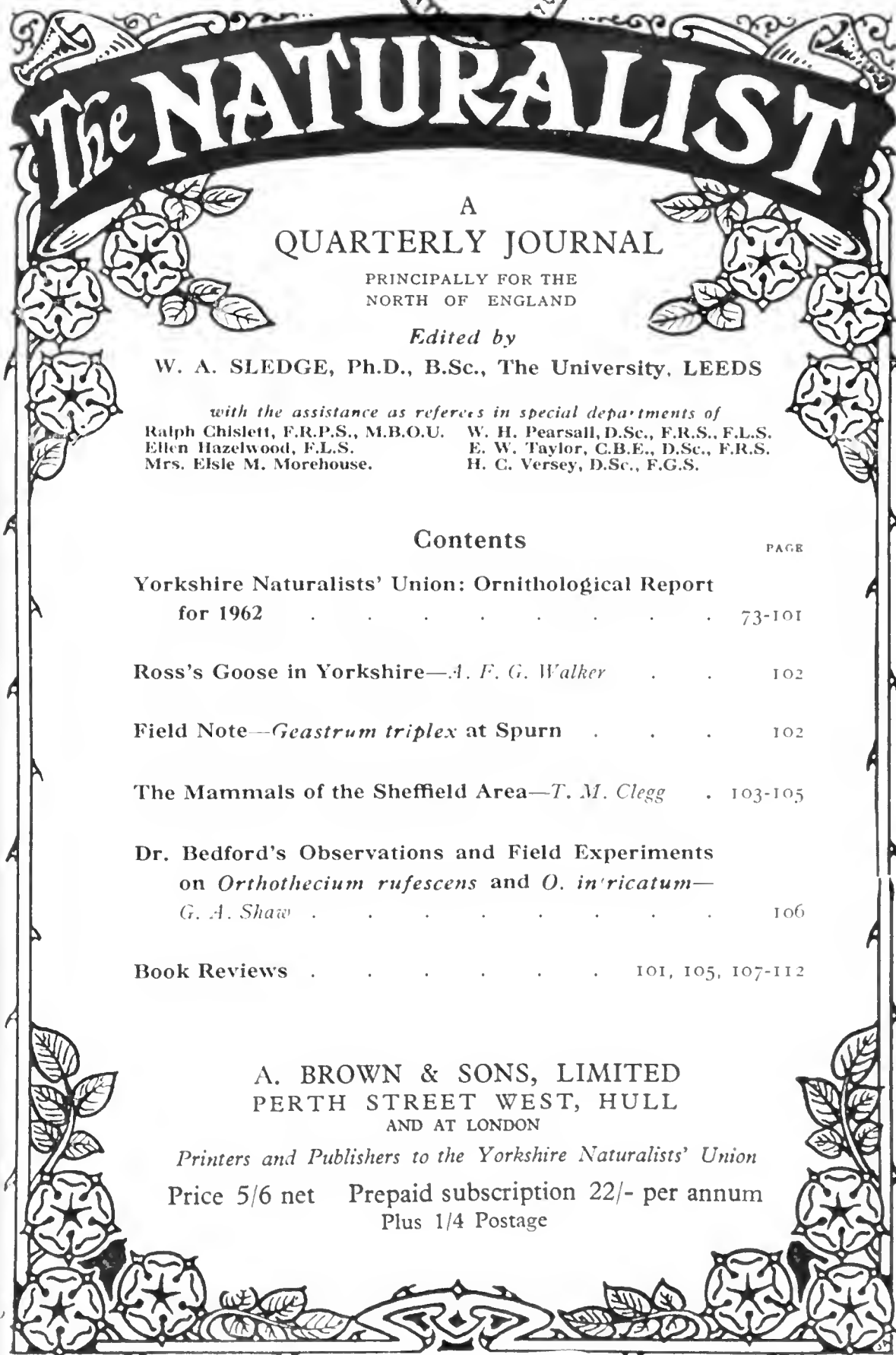


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PRINCIPALLY FOR THE
NORTH OF ENGLAND

Edited by

W. A. SLEDGE, Ph.D., B.Sc., The University, LEEDS

with the assistance as referees in special departments of

Ralph Chislett, F.R.P.S., M.B.O.U.	W. H. Pearsall, D.Sc., F.R.S., F.L.S.
Ellen Hazelwood, F.L.S.	E. W. Taylor, C.B.E., D.Sc., F.R.S.
Mrs. Elsie M. Morehouse.	H. C. Versey, D.Sc., F.G.S.

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YORKSHIRE NATURALISTS' UNION ORNITHOLOGICAL SECTION

Preliminary Notice

In conjunction with the Ornithological section of the Y.N.U., the Doncaster and District Ornithological Society have arranged a joint meeting with the British Trust for Ornithology to be held at the new Doncaster Museum on the afternoon and evening of Saturday, 30th November, 1963, commencing at 3-0 p.m.

For the B.T.O., Ron Hickling, whose subject is "How many birds?" will be speaking on the vital topic of the effects of toxic chemicals. The Y.N.U. speaker will be R. F. Dickens on his studies of Skuas in Shetland and Iceland.

Further details of this meeting will be announced later, but members are asked to make a note of the date NOW.

Exchange copies of the following periodicals may be had on loan from The Editor of *The Naturalist*, The University, Leeds 2, on receipt of stamped addressed envelope :

British Birds.

Bird Notes.

Bird Study.

Essex Naturalist.

The London Naturalist.

Irish Naturalists' Journal.

Transactions of the Lincolnshire Naturalists' Union.

Transactions of the British Mycological Society.

Copies of Mr. A. A. Pearson's Papers, Mycena, The Genus *Inocybe*, and second editions of *British Boleti* and *The Genus Russula*, price 2/6 each, and Mr. P. D. Orton's *Cortinarius* Part 1 and 2, price 7/6 each, may be obtained from the Editor of *The Naturalist*.



YORKSHIRE NATURALISTS' UNION
ORNITHOLOGICAL SECTION

Chairman: RALPH CHISLETT, M.Sc., M.B.O.U., F.R.P.S.

Hon. Secretary: R. F. DICKENS, Ridgefield, Glasshoughton Hill, Castleford.

Recorders:

- V.C. 61—East Riding: H. O. Bunce, 37 Auckland Avenue, Hull.
V.C. 62—North Riding—*East*: A. J. Wallis, 13 Raincliffe Avenue, Scarborough.
V.C. 63—West Riding—*South*: J. Cudworth, 17a Prospect Road, Ossett.
*V.C. 64—West Riding—*North*: J. R. Mather, 44 Aspin Lane, Knaresborough.
V.C. 65—North Riding—*West*: R. Chislett, Brookside, Masham, Nr. Ripon.
*A. F. G. Walker up to September.

The Recorders with the Chairman and the Hon. Secretary of the Section form the Records Committee.

Report for 1962 (compiled by H. O. Bunce).

Weather moves took place in the first few days of January, including thrushes, starlings, finches and buntings; later, a slow return of Lapwings and Skylarks, and Siskins and Redpolls were numerous in some inland areas. In spite of the cold, a Whimbrel, Green Sandpipers, Spotted Redshanks, Black-tailed Godwits and a Yellow Wagtail were recorded. Two February gales did immense damage to old trees inland, and a great Fulmar wreck followed on the coast; several dark Fulmars, a Ross's Gull, and a party of Arctic Redpolls in Holderness. Dead Fulmars were found into March, a notable Shag move down the coast and a Little Gull inland; in the continuing cold weather, Golden Plovers were late on the breeding grounds; in contrast with records of Greenshank and Arctic Skua, only two Wheatears and single Chiffchaffs, Ring Ouzels, Sand Martins and Garganeys were reported in the last few days of March. Surprisingly early Lesser Whitethroats, Tree Pipits, Blackcaps and Redstarts in April, but the warm days of the 10th, 22nd and 23rd brought a rush of 'firsts' to many districts—Cuckoo, Swift, Reed and Sedge Warblers, Nightingale, Whinchat, House Martin, Spotted and Pied Flycatchers, as well as several Marsh Harriers and a Dotterel.

A cold May, with large numbers of Swifts and Hirundines over water and difficult breeding conditions for many species; some large coastal Wheatear moves, several Wood Sandpipers, a Red-necked Phalarope, two Ospreys and a Ross's Goose. Even June produced a force 6 gale; a Long-tailed Skua, and the beginning of an early duck and wader influx, both inland and on the coast. A Crossbill invasion at the end of the month, numbers remaining high well into July; July saw an early return of several high Arctic waders, a Scoter passage inland, and signs of an abundance of sea birds which continued through August, possibly as a result of large numbers of small surface fish close inshore. In different areas, terns, skuas, Kittiwakes and Fulmars were numerous. The August Kestrel increase was early and large numbers of Willow Warblers appeared in several places. The sea held great interest through September, but the usual drift species were very scarce: several Barred Warblers, an Icterine and a Yellow-browed Warbler, two Bluethroats and a Firecrest—and not a single Red-breasted Flycatcher or Red-backed Shrike. A small wader influx late in the month.

The Fairburn Swallow roost reached a peak on the 1st October, when Sand Martins also passed through; a fresh Crossbill invasion included at least one Parrot Crossbill; a poor Song Thrush passage, but a large Fieldfare and Redwing move on 11th October and later in the month. Rock Pipits were reported inland, more Firecrests, Whooper and early Bewick's Swans; a large skua movement on the 26th. Black-bellied Dippers in October and November, the latter month perhaps the most interesting of the year with its sea-moves of 3rd-4th, 10th-11th and 17th-18th—all weekends! Many duck and several wader species were involved, including Scaup, Eider and Goldeneye, with corresponding increases of Gadwall and other species, and inland reports of Eider and Velvet Scoter. Some skuas also occurred and the dates 11th and 18th November crop up in a surprising range of species. The big thrush immigration took place in November, as well as Starling, Woodcock and Whooper Swan; several Little Auks, Long-eared Owls and more Firecrests,

A Greenshank in early December, and continuing thrush influxes merging with cold weather moves; in the two early cold spells, several species were reported moving west, and around Christmas others moved to the coast whilst Redwings and Fieldfares again appeared in towns. Two Bewick's/Whooper Swan moves occurred.

THE SPURN BIRD OBSERVATORY

Report for 1962

Ralph Chislett

Visits to the peninsula by organised parties during the birds' breeding season were discouraged; such as came nevertheless, were asked to keep to the road. A single party, if they all pass quickly by any particular spot may do little damage; but multiplied may do a lot. The breeding birds must have first consideration in spring and early summer, so far as can be given. To patrol and keep people away from breeding areas needs more than one person; volunteers to help the warden at week-ends would be welcome. There is no doubt several species are sadly diminished. Ringed Plovers and terns especially. We must try again to have breeding on the peninsula the birds that should breed in such a place. Most of the loss had accumulated before the Yorkshire Naturalists' Trust became owners. Outside the restricted period many parties came, mostly of naturalists, by arrangement with the warden.

Visitors who stay at the observatory should be purposeful students, ready to help with the work, as most of them are. A glance at the records shows that helpers were present on twenty-two days in January, on only ten in February, then continuously from March 14th to June 2nd, except for three days in late May. Spring migration was therefore fairly well covered. The warden was alone on twenty days between June 2nd and July 20th; after which varying numbers helped to watch and to ring daily until November 19th and on twenty-one days thereafter to the year end. As usual, pressure on accommodation was greatest in autumn. For some week-ends, usually when little proved to be doing, more requests for beds came than were available. The warden is helped if alternative dates are offered. No-one should think that they can arrive unexpectedly and find a room vacant.

The recently established 'lifer box,' wherein one places a coin to celebrate the sight of a species new to the viewer, contributed to maintenance. With aid from the Y.N. Trust Ltd., gifts of various kinds from visitors, the voluntary work done by so many; and of course the nightly fees we all pay, the Observatory remains solvent.

Birds ringed totalled 8,224, a record number, and 1,458 higher than in 1961. Increases in ringings of Fieldfares, Redwings, Meadow Pipits, Pied Flycatchers, and especially of Linnets much more than balanced reductions in Blackbirds, Greenfinches, Robins and House Sparrows. Conspicuously absent from the traps were: Stonechat, Red-breasted Flycatcher, Wryneck and Corn Bunting. Just as surprising as the Desert Wheatear seen by many from April 16th to 19th, was the fact that fresh Linnets were being caught in abnormal numbers from the winter months, through spring until July (when the year's crop of young appeared) and a few afterwards. Thirty-three Blackbirds were recovered far away, the ringings of which were spread back to 1957. J. R. Mather's tabulation of birds recovered at a distance will show many other interesting items, including Spurn-ringed House Sparrows in Norfolk in April and May, and one near Peterborough in October.

Hundreds of birds were re-trapped, some repeatedly. Table I only includes birds ringed a year or more previously.

Sea-watches were kept on many days. Skuas came daily during most of August and September; often when terns and/or Kittiwakes were present or passing. Passerines usually followed the coast, or came off the sea, much paper was used in recording them. Table II shows the peak estimates recorded of selected species on days when they were present, or passed in the largest numbers, together with their numbers when other species were at their peaks. Fieldfares were more in evidence and in greater numbers in the late autumn than usual. Robins less so.

December 1962 ends the seventeen years long period of establishing and building-up the observatory, by those who began it, and I must refer to the devoted services over those years of the retiring Honorary Secretary, G. H. Ainsworth. He built the first trap at the Warren. Really to do justice to George in full cry in the mouth of a Heligoland trap would need the descriptive verve of a sports commentator. He has given us the benefit of his technical knowledge. His energy and common sense, often

RINGINGS OF THE SPURN BIRD OBSERVATORY TO 31/12/62

	Ringed in 1962	Total to 31/12/62		Ringed in 1962	Total to 31/12/62
Slavonian Grebe		1	<i>Brought forward</i>	302	2627
Storm Petrel		1	Willow Tit		5
Cory's Shearwater		1	Long-tailed Tit	1	27
Fulmar		1	Bearded Tit		6
Gannet		1	Treecreeper		4
Shag		1	Wren	36	472
Mallard		2	Mistle Thrush		7
Scaup		1	Fieldfare	125	192
Long-tailed Duck		1	Song Thrush	206	1464
Common Scoter		1	Redwing	296	731
Velvet Scoter		1	Ring Ouzel	3	26
Shelduck		2	Blackbird	874	6727
Sparrowhawk		23	Wheatear	38	247
Merlin		2	Stonechat		43
Kestrel	5	31	Whinchat	16	273
Red-legged Partridge	6	36	Redstart	72	1017
Common Partridge	31	65	Black Redstart	7	59
Pheasant		4	Nightingale		9
Corncrake		1	Bluthroat	1	17
Water Rail	3	16	Robin	94	2354
Moorhen	5	20	Grasshopper Warbler		5
Coot	1	1	Reed Warbler	1	17
Oystercatcher		4	Sedge Warbler	31	235
Lapwing	2	13	Icterine Warbler		9
Ringed Plover	10	149	Blackcap	21	212
Golden Plover	2	3	Barred Warbler	2	23
Grey Plover	2	2	Garden Warbler	33	377
Turnstone	5	14	Whitethroat	157	1909
Snipe	1	6	Lesser Whitethroat	6	90
Jack Snipe		1	Willow Warbler	133	2064
Woodcock	1	11	Greenish Warbler		3
Green Sandpiper		2	Chiffchaff	9	191
Wood Sandpiper		5	Wood Warbler		17
Common Sandpiper	1	3	Yellow-browed Warbler	1	9
Redshank	14	32	Pallas's Warbler		1
Greenshank		1	Goldcrest	94	881
Knot		2	Firecrest	2	4
Little Stint		4	Spotted Flycatcher	25	231
Dunlin	36	254	Pied Flycatcher	147	989
Curlew Sandpiper		2	Red-breasted Flycatcher		29
Ruff		1	Hedge Sparrow	222	1432
Great Black-backed Gull	1	1	Meadow Pipit	257	1247
Common Gull		6	Richard's Pipit		1
Common Tern	1	1	Rock Pipit	3	10
Little Tern		77	Tree Pipit	1	34
Razorbill		2	Pied Wagtail	1	4
Little Auk		1	White Wagtail	1	2
Guillemot		9	Yellow Wagtail		8
Puffin		2	Waxwing		3
Woodpigeon	5	9	Great Grey Shrike	3	10
Turtle Dove	5	14	Woodchat Shrike		1
Collared Dove	1	2	Red-backed Shrike		11
Cuckoo	11	150	Starling	258	1765
Barn Owl		3	Hawfinch		1
Little Owl	1	8	Greenfinch	856	5784
Tawny Owl		1	Goldfinch	10	52
Long-eared Owl	1	6	Siskin		44
Short-eared Owl		1	Linnet	1808	5869
Swift		3	Redpoll	14	53
Hoopoe		1	Serin		1
Great Spotted Woodpecker	5	9	Bullfinch	3	7
Wryneck		33	Scarlet Grosbeak		2
Short-toed Lark		1	Crossbill	5	11
Skylark	55	363	Crossbill, Parrot	1	1
Shorelark	1	11	Chaffinch	470	3365
Swallow	59	502	Brambling	111	901
House Martin	1	3	Yellowhammer	19	163
Sand Martin		36	Corn Bunting		29
Carriion Crow		3	Red headed Bunting		1
Rook		15	Ortolan Bunting		1
Jackdaw	1	13	Reed Bunting	69	887
Magpie		23	Lapland Bunting		3
Jay		1	Snow Bunting	25	2000
Great Tit	8	154	House Sparrow	1175	8102
Blue Tit	21	375	Tree Sparrow	179	588
Coal Tit		66			
<i>Carried forward</i>	302	2627	Total	8224	55996

TABLE I

BIRDS RE-TRAPPED AT SPURN IN 1962, RINGED IN PREVIOUS YEARS

Retrapped 1962	1961	1960	1959	1958	1957	1956	1955	1954
2 Skylark	1	—	—	—	1	—	—	—
1 Blue Tit	—	—	—	1	—	—	—	—
4 Song Thrush	3	1	—	—	—	—	—	—
9 Whitethroat	3	3	1	2	—	—	—	—
20 Hedge Sparrow	13	4	3	—	—	—	—	—
1 Meadow Pipit	—	1	—	—	—	—	—	—
2 Starling	1	1	—	—	—	—	—	—
16 Greenfinch	7	7	1	1	—	—	—	—
73 Linnet	39	30	2	2	—	—	—	—
2 Chaffinch	1	—	1	—	—	—	—	—
17 Reed Bunting	6	7	3	1	—	—	—	—
92 House Sparrow	18	34	22	8	3	4	2	1
2 Tree Sparrow	2	—	—	—	—	—	—	—
5 { Cuckoo, Wren, Fieldfare, Robin, Sedge Warbler (one each) }	5	—	—	—	—	—	—	—
246	99	88	33	15	4	4	2	1

expressed with humour, have smoothed away scores of difficulties. Without his optimism and enthusiasm the observatory might never have been; with them, the concerted communal note book, that passed between the several people who paid visits to Spurn in the few years before 1940, grew into the log and roll-call, and the observatory as it is today. Much has been added to our knowledge, with the help of the many who have participated. We thank them all. George and I can now retire, confident that Keith Fenton (the new Honorary Secretary) and John Cudworth (the new Chairman) will have the same loyal co-operation from so many that we have had. They and the observatory will have any help and support that we can give them.

TABLE II

PEAK ESTIMATES OF SELECTED SPECIES AT SPURN

	July 19	July 21	Aug. 18	Sept. 5	Sept. 8	Sept. 11	Sept. 29	Oct. 11	Oct. 12	Oct. 13	Oct. 19	Nov. 2	Nov. 7
Swift	2000	5000	10	60	—	4	1	1	—	—	1	—	—
Skylark	✓	20	✓	10	8	112	1350	50	✓	✓	500	250	100
Swallow	30	50	4550	8000	1500	2000	360	30	6	7	60	—	9
House Martin	—	10	2	85	60	155	4	—	—	—	4	—	2
Sand Martin	100	40	19	40	6	210	2	—	—	—	—	—	—
Fieldfare	—	—	—	—	—	—	—	600	300	500	850	400	3000
Song Thrush	1	4	—	10	4	7	6	60	80	30	12	15	20
Redwing	—	—	—	—	—	—	1	1500	300	500	260	250	1000
Ring Ouzel	—	—	—	—	—	—	—	4	1	3	—	—	—
Blackbird	—	—	2	6	4	6	10	100	150	60	25	40	3000
Robin	—	—	—	2	—	1	2	30	50	40	—	—	3
Meadow Pipit	✓	20	5	250	4600	3250	1260	60	20	20	240	40	20

Recoveries of Yorkshire Ringed Birds

(and of birds ringed elsewhere and recovered in Yorkshire)

Compiled by John R. Mather

Space has again necessitated the selection of only the more important recoveries. Many recoveries of some species, such as Lapwing, Blackbird, Starling and Linnet appear in analysed form, except where they show deviation from the accepted pattern, or shed new light on the known routes and destinations.

In last year's report, ringing totals were requested so that the grand total for the county could be published. 30,000 was the estimated number, and the totals sent in add up to 30,288. 29 individuals and groups were responsible.

Large numbers of Swifts were ringed in the county (1,485+) and these should provide much information in years to come, as have the Swifts ringed in previous years and recaptured subsequently, *e.g.* at Harrogate S.F. where of 251 ringed in 1958, 24 were 'controlled' there in 1962. Smaller numbers from later years were controlled (re-trapped and released) at other places, as were also *Hirundines* and other migrants.

I have been asked by the chief warden of the Fairburn Reserve to point out that no ringing should be undertaken there except under the supervision of C. Winn. It will be appreciated that the area is treated as a bird observatory, and individual ringers should not use their own rings there. Anyone wishing to take part in the ringing programme should first contact Mr. Winn.

Recoveries are listed in 'date of ringing' order and the symbols for manner of recovery are as follows:

v	=	caught alive and released with ring.
+	=	shot or killed by man.
×	=	found dead or dying.
()	=	caught alive and not released or released with ring removed.
/?/	=	manner of recovery unknown.

Birds ringed abroad and recovered in Yorkshire are listed separately at the end.

LIST OF SELECTED RECOVERIES**CORMORANT**

5001728	pull.	14-8-61	Farne Islands, N'land.	
	×	20-6-62	Spurn. (155 m. SE.)	per SBO

HERON

1008915	pull.	27-4-61	nr. Whixley	
	×	23-4-62	St. Ninian's Bay, Isle of Bute, Scotland. (190 m. NW)	KRS
1008917	pull.	27-4-61	nr. Whixley.	
	×	28-4-62	Wark. N'land. (80 m. NNW)	KRS
1008923	pull.	22-5-61	nr. Whixley	
	×	3-4-62	Dinnington, nr. Sheffield. (46 m. S.)	KRS

TEAL

3025359	pull.	16-6-57	Gouthwaite Res.	
	+	28-11-62	Riccall, nr. Selby (35 m. SE)	ESS

CANADA GOOSE

5000163	pull.	26-6-60	Ripley/transported to Grimsby for release.	
	×	30-11-62	nr. Gt. Driffield. (35 m. NNW)	SSW

MUTE SWAN

Z 1819	3rd W	3-9-60	Hornsea Mere	
	v	6-10-60	Cambridge (120 m. S).	
	×	24-4-62	Abberton Res. Essex. (40 m. SE)	GRB
Z 5352	pull.	6-7-61	Gt. Ouseburn, nr. York.	
	×	15-10-62	Swalwell, nr. Newcastle, Co. Durham (66 m. NNW)	KRS

BUZZARD

AF 4250	pull.	7-7-62	Woodfidley, nr. Beaulieu, Hants.	
	×	17-9-62	Rolston, nr. Hornsea. (215 m. NNE).	per BTO

LIST OF SELECTED RECOVERIES—*continued*

LAPWING

13 Lapwings ringed as pull. in Yorkshire between 1956 and 1961 were recovered in Dec 1961 (3) Jan 1962 (9) and Feb 1962 (1) in France (7) and Spain (6). One ringed as pull. nr. Masham in 1961 was found dead at Exmouth, Devon, in Jan 1962, and one ringed as pull. nr. Harrogate in 1958 was nr. Monaghan, Eire in Dec 1962 (220 m. W).

TURNSTONE

R 44101	ad. ♀	25-7-59	Spurn.	
	×	(3-5-62)	Fleetwood, Lancs. (126 m. WNW).	SBO

SNIBE	f.g.	15-12-61	Arnthorpe	
4308 S	+	4-1-62	Nr. Cahreconlish (Limerick). (310 m. W)	TG
32823 S	f.g.	29-10-61	Adwick-le-street	
	+	23-1-62	Lawarth, Cornwall. (295 m. SW)	RJR

CURLEW

369866	pull.	19-6-55	Stainburn, nr. Harrogate.	
	+	?-9-61	Brideswell, Lough Ree, Roscommon.	WNS

LESSER BLACK-BACKED GULL

AJ 51009	pull.	7-7-62	Walney Island.	
	v	23-9-62	Knaresborough S.F. (70 m. E)	per JRM

COMMON GULL

?	1st W	17-1-60	Willerby, Hull.	
	×	3-6-62	Fesenoy, nr. Kopervic (Rogaland), Norway.	DJM

BLACK-HEADED GULL

AT 79002	pull.	2-7-61	Blacklock, Sanquhar, Dumfries.	
	×	1-1-62	Knaresborough S.F. (132 m. SE)	per JRM
3069447	ad.	5-1-62	Woodhouse, nr. Sheffield.	
	×	5-5-62	Norshelm (Östergötland), Sweden 58°30'N., 15°55'E.	SNHS

KITTIWAKE

2020808	pull.	3-7-60	Scarborough	
	×	10-9-62	Zaandam (Noord Holland), N'lands. 52°27'N., 4°49'E.	JRM

COMMON TERN

22215 S	pull.	4-7-62	Scolt Head, Norfolk.	
	×	30-8-62	Hornsea Mere (75 m. NW)	AHR

ARCTIC TERN

?	pull.	22-6-61	Farne Islands, N'land.	
	×	21-7-61	Flamborough.	N&DNHS

SWIFT

J 40007	ad.	28-6-59	Ilkley.	
	×	26-1-62	Kikwit (Leopoldville), Congo. 5°02'S, 18°51'E.	WNS
SC 14389	f.g.	19-7-62	Hackenthorpe, Sheffield.	
	×	29-12-62	Fort Victoria, S. Rhodesia. 20°10'S, 30°49'E.	SNHS

This is the farthest south for any British ringed Swift to be recovered.

KINGFISHER

SC 13401	f.g.	23-4-62	Kilnhurst, Rotherham.	
	×	22-8-62	Barrasford, Hexham, N'land. (110 m. NNW).	FH

This is a record distance for a British ringed Kingfisher.

LIST OF SELECTED RECOVERIES—*continued*

SWALLOW

AA 85221	juv.	28-8-60	Sprotborough Flash.	
	v	3-2-62	Dundee (Natal), S. Africa. 28°10'S, 30°15'E.	RJR
AA 98590	juv.	22-9-60	Fairburn.	
	×	21-7-62	Lochgair, Loch Fyne (Argyll). (225 m. NW)	CW
AA 98293	juv.	25-9-60	Fairburn	
	v	6-7-62	St. Andrews (Fife). (185 m. NNW)	CW
AC 37020	ad.	7-9-61	Fairburn.	
	×	28-6-62	Leith, nr. Edinburgh (Midlothian). (170 m. NNW)	CW
AC 37373	juv.	14-9-61	Fairburn.	
	[?]	14-10-62	Kasanza, nr. Vudi (Leopoldville), Congo. 6°00'S., 18°55'E.	CW
AC 37533	ad. ♀	18-9-61	Fairburn.	
	()	30-3-62	nr. Djambala, French Congo 2°32'S., 14°43'E.	CW
AC 37591	juv.	18-9-61	Fairburn.	
	×	21-5-62	Thornliebank, Glasgow (Renfrew). (185 m. NW)	CW
AC 46350	juv.	22-9-61	Fairburn.	
	v	21-6-62	Clachan Bridge, nr. Oban (Argyll). (245 m. NW.)	CW

In addition, 2 birds ringed in Aug and 9 ringed in Sept 1961, at the Fairburn roost and recovered on spring and autumn passage between Boston (Lines) 76 m. SE and Berwick (N'land) 135 m. NNW.

SAND MARTIN

AA 90632	juv.	4-9-60	Fairburn.	
	v	22-6-62	Coates, Petworth (Sussex) (188 m. S)	CW
AA 90658	juv.	6-9-60	Fairburn.	
	v	6-8-62	Spean Bridge (Inverness). (250 m. NW)	CW
AA 90880	juv.	11-9-60	Fairburn.	
	×	mid-3-61	San Jaime (Tarragona), Spain. 40°43'N., 0°42'E.	CW
AC 10316	juv.	30-7-61	Littlebourne, Canterbury, Kent.	
	v	13-7-62	Fairburn.	SBRS
AC 08435	ad.	7-8-61	Fairburn.	
	v	17-4-62	Alhabia (Almeria), Spain. 37°00'N., 2°25'W.	CW
AC 22546	juv.	11-8-61	Fairburn.	
	×	7-6-62	Lumsden, Huntly (Aberdeen). 260 m. NNW.	CW
AC 29624	juv.	9-7-62	Fairburn.	
	v	19-8-62	Chichester (Sussex). 200 m. S.	CW

In addition, 30 birds ringed at the Fairburn roost in the autumns of 1958 (1), 1960 (8), 1961 (21) were recovered May to Aug 1962, at distances of up to 100 m. W to N of Fairburn. A further 5 birds ringed in the summer of 1962 in Yorks (3) N'land (1) and West'd (1) were controlled at the Fairburn roost in July (3) and Sept (2).

2 birds ringed at Otley on 6 July 1961, and 11 Aug 1962 were controlled at Romford S.F., Essex, on 17 July 1961 and 12 Sept 1962 respectively. (F&L). 3 controlled at Masham on 10 June, 1962, had been ringed respectively at the Welney roost in Norfolk (1) on 9 Sept 1961 and at the Fairburn roost in Aug and Sept, 1961. (EEJ).

RAVEN

931329	pull.	29-4-61	nr. Appleby, Westmorland.	
	×	18-10-61	Arncliffe, nr. Skipton. (35 m. SE)	RWR
931330	pull.	29-4-61	nr. Appleby, Westmorland.	
	×	28-4-62	Litton, Kettlewell. (35 m. SE)	RWR
412180	pull.	20-4-58	Westmorland.	
	×	4-1-62	Gt. Whernside, Nidderdale.	per DS

ROOK

3059845	pull.	7-5-60	Ackworth.	
	[?]	31-3-62	Newark, Notts. (44 m. SE)	Ack.S

LIST OF SELECTED RECOVERIES—*continued*

BLUE TIT

A 97396	ad. ♀	6-12-57	Ackworth.	
	/?/	29-3-62	Ripon. (38 m. NNE).	Aek.S

Of 180 caught in a garden at Masham in 1962, two had been ringed in 1956, one in 1957, one in 1959, 4 in 1960 and 16 in 1961. R.C.

FIELDFARE

80643 S	ad.	29-12-61	Ossett.	
	×	2-1-62	nr. St. Valery en Caux, Seine Maritime, France. 49°52'N, 0°43' E.	AF

SONG THRUSH

V 89677	juv.	20-6-59	Spurn.	
	×	1-1-62	Rosspport, Ballina (Mayo). 375 m. W.	SBO
84118 X	f.g.	20-10-60	Spurn.	
	+	1-11-62	Matha (Charente Maritime), France. 45°52'N, 0°18'W.	SBO
42691 X	pull.	8-6-61	Bewerley, nr. Pateley Bridge.	
	×	8-2-62	Loughrea, Galway, N. Ireland. 280 m. W.	SSW
60919 S	juv.	27-8-61	Adwick-le-Street, nr. Doncaster.	
	×	4-1-62	Isle of Seilly. 330 m. SSW.	RJR
32097 X	f.g.	3-9-61	Arncliffe, nr. Doncaster.	
	×	5-2-62	Virandeville (Manche), France. 49°33'N., 1°41'W.	TG
85222 X	f.g.	3 10-61	Spurn.	
	×	early-1-62	Bere Regis, Dorset. 220 m. SSW.	SBO
85281 X	f.g.	10-10-61	Spurn.	
	×	25-3-62	Madrid, Spain. 40°25'N, 3°43'W.	SBO

REDWING

93717 X	f.g.	29-1-61	Huddersfield.	
	+	24-10-61	nr. Bordeaux (Gironde), France. 44°50'N, 0°30'W.	TDB

RING OUZEL

89034 S	ad. ♀	12-5-62	Spurn.	
	+	2-11-62	Cella (Teruel), Spain. 40°27'N, 1°18'W.	SBO

BLACKBIRD

42847 X	ad. ♀	10-12-60	Gouthwaite Res.	
	×	17-4-62	Järnforsen, nr. Jareda, Sweden. 57°24'N., 15°35'E.	SSW
42818 X	1st W ♂	19-11-60	Gouthwaite Res.	
	+	25-11-62	Arques, Pas de Calais, France. 50°45'N, 2°15'E.	SSW

These two birds were both ringed at the same winter roost.

73674 X	f.g. ♀	12-8-61	Masham.	
	/?/	17-1-62	Hollincross, Tipperary, Eire.	RC
24007 X	ad. ♀	15-12-61	Hemsworth.	
	/?/	3-1-62	Listowel, Co. Kerry, Eire.	MNR

12 birds ringed in Oct-Nov, 1961 at Spurn were recovered in the summer & autumn of 1962 in: Sweden (4), Norway (3), Germany (3), one in France in Nov 1962, one in Galway (Eire) in Mar 1962. 3 birds from the 'rush' of 5 Nov 1961 were recovered in Jan 1962 in Wilts (185 m. SW), in Mayo (320 m. W) & Galway (365 m. W), & 2 in Nov 1962 at Fair Is. & in Rogaland (Norway). 3 ringed in Mar & Apr at Spurn (2) & at Sutton-on-Hull (1) were recovered in 1962 in Norway (1) & Sweden (2). One from Adwick-le-Street in Mar was in Sweden in Oct.

ROBIN

AB 31381	f.g.	22-9-61	Spurn.	
	×	3-1-62	Portslade, nr. Brighton, Sussex. 190 m. S.	SBO
AE 67588	f.g.	7-11-62	Spurn.	
	×	13-12-62	Gainsborough, Lincs. 40 m. WSW.	SBO

2 Spurn Robins of Oct 1960 were in Belgium and the Netherlands in Oct 1961.

LIST OF SELECTED RECOVERIES—*continued*

SEDGE WARBLER

AE 65684	f.g.	6-8-62	Sprotborough, nr. Doncaster.	
	×	26-8-62	Guineamp (Cotes du Nord), France. 48°34'N, 3°09'W.	WGD

GARDEN WARBLER

K 53333	f.g.	10-8-59.	Masham.	
	v	11-6-62	Masham.	RC/EEJ

MEADOW PIPIT

91351	ad.	25-4-60	Knarborough S.F.	
	()	mid-9-62	Getafe (Madrid), Spain. 40°18'N, 3°44'W.	KRS

PIED WAGTAIL

AA 39238	juv.	25-6-60	Ilkley.	
	×	early-3-62	nr. Obidos (Estremadura), Portugal. 39°21'N, 9°11'W.	WNS
AA 39673	juv.	24-7-60	Ilkley.	
	×	winter 61/62	Ponte de Sôr (Ribotejo), Portugal. 39°15'N., 8°01'W.	WNS
AA 49020	juv.	2-7-61	Ilkley.	
	+	18-1-62	Pasao (Alto Alentejo), Portugal. 38°36'N, 8°15'W.	WNS
AE 54571	juv.	2-8-62	Mexborough.	
	[?]	25-10-60	Mafra (Estremadura), Portugal. 38°57'N, 9°19'W.	RJR

YELLOW WAGTAIL

	ad. ♂	29-7-61	Gouthwaite Res.	
		0-11-62	Campanario (Badajoz), Spain. 38°52'N, 5°36'W.	SSW

STARLING

11 Starlings ringed Nov to Feb 1959-1962 were recovered in the summer and autumn of 1962 in: Norway (1), Sweden (1), Finland (1), Denmark (3), Holland (2), Germany (1) and Poland (2). A juv. ringed at Knarborough S.F. in July 1961 was in Dublin in April, 1962.

GREENFINCH

R 44650	f.g. ♀	3-1-60	Spurn.	
	×	3-7-62	Boulmer, nr. Alnwiek, N'land. 145 m. NW.	SBO

12 other Spurn ringed Greenfinches were recovered from 9 to 98 miles, SE clockwise to N.

LINNET

AC 38963	juv. ♀	27-6-62	Spurn.	
	+	30-10-62	nr. Cadiz, Spain. 36°10'N., 5°21'W.	SBO

Of 9 other Yorkshire ringed Linnets, 7 were in S & W France in the winter of 1960/61 (3), and at the end of 1962 (4), and 2 were in Belgium in Oct 1961 and Nov 1962, respectively. One ringed at Spurn in early July 1961 as a juv. was still 450 miles S of Yorkshire at the end of May 1962.

REDPOLL

AC 38765	1st W ♂	21-4-62	Spurn.	
	×	24-5-62	Memmert, E. Frisian Is., Germany. 53°38'N, 6°52'E.	SBO
AE 75988	ad.	6-10-62	Newmillerdam.	
	v	28-10-62	nr. Thuin (Hainant), Belgium. 50°17'N, 4°18'E.	AF

CHAFFINCH

J 87400	1st W ♂	2-4-60	Spurn.	
	v	12-3-61	Millwood, Barrow-in-Furness, Lanes. 135 m. WNW.	SBO
J 86229	f.g. ♀	7-4-60	Spurn.	
	×	19-3-61	Abbey, nr. Darwen, Lancs. 107 m. W.	SBO

BRAMBLING

J 83141	ad. ♂	11-10-59	Spurn.	
	v	26-3-61	Brasschaat (Antwerpen), Belgium. 51°17'N, 4°30'E.	
	[?]	14-10-62	Booischoot (Antwerpen). 51°02'N, 4°42'E.	SBO

LIST OF SELECTED RECOVERIES—*continued*

HOUSE SPARROW

AB 03214	f.g. ♂	12-10-60	Spurn.	
	()	4-10-62	Stanground, Peterborough (Northants).	70 m. S. SBO
AB 04785	f.g. ♂	8-3-61	Spurn.	
	×	18-4-62	Dersingham, Norfolk.	52 m. SSE. SBO
AB 05575	f.g. ♂	9-6-61	Spurn.	
	×	18-5-62	Wolfeaton, Castle Rising, Norfolk.	56 m. SSE. SBO
BA 18134	ad. ♂	29-10-61	Knaresborough S.F.	
	×	23-8-62	Bognor Regis, Sussex.	225 m. S. KRS

Body and ring sent to British Museum (fortunately!)

List of Birds Ringed Abroad and Recovered in Yorkshire

TEAL

Leiden

3035353	1st W ♂	20-9-61	Texel, Holland.	
	+	3-2-62	nr. The Fleets, Barnsley.	per GRA

PINK-FOOTED GOOSE

Wing Tag

C 588	pull.	1-8-51	Thórsáver, Central Iceland.	
	×	24-9-62	Broomfleet Island, Humber.	per TWH

BLACK-HEADED GULL

Stockholm

6023392	pull.	23-6-62	Falsterbo, Sweden.	
	×	31-10-62	Ardsley Res.	per RH
?	pull.	18-6-58	Lake Engure, nr. Riga, Latvian S.S.R.	
			57°17'N, 23°07'E.	
	×	Jan. 61	Sutton-on-Hull	per BSP
?	pull.	6-6 57	Fornebu, Baerum Akershus, Norway.	
			59°53'N, 10°33'E.	
	×	11-3-62	Withernsea.	per BSP

DUNLIN

Stav.

856001	f.g.	31-8-60	Revtangen, Rogaland, Norway.	58°45'N., 5°30'E.
	[?]	30-12 62	Spurn.	per SBO

BLACKBIRD

7357033	ad. ♀	1-11-59	Heligoland.	
	v	31-12-61	Adwick-le-Street.	
	v	28-1-62	Adwick-le-Street. (See 1961 Report).	per RJR

SPOTTED FLYCATCHER

Heligoland

986311	f.g.	14-6-61	Heligoland.	
	v	15-7-62	Spurn.	per SBO

PIED FLYCATCHER

Heligoland.

093743	1st W	1-9-62	Wangeroog, East Frisian Is., Germany.	
	v	14-9-62	Spurn.	per SBO

STARLING

?	f.g. ♂	19-3-59	Heligoland.	
	×	15-1-62	Ellerby, E. Yorks.	per BSP
?	f.g.	26-8-61	Ouderkerk/Amsrel, Noord Holland.	
	[?]	8-3-62	Hull.	per BSP

KEY TO INITIALS

Ackworth School, G. R. Aynsley, G. R. Bennett, T. D. Bisiker, British Trust for Ornithology, R. Chislett, W. G. Dye, A. Frudd, T. Grant, F. Horner, T. W. Henderson, E. E. Jackson, Knaresborough Ringing Station (J. R. Mather & G. R. Wilkinson), D. J. Millin, Northumberland & Durham N. H. S., B. S. Pashby, M. N. Rankin, R. J. Rhodes, A. H. Rider, R. W. Robson, Sanderson, Summersgill & Walker, E. S. Skinner, Sorby N.H.S. Spurn B.O., D. Swindells, Wharfedale N.S., C. Winn.

CLASSIFIED LIST

The order used is that of the B.O.U. *Check List* (1952), and English names follow current *British Birds* practice. To save space, a less readable style has been adopted including the use of accepted, and some unfamiliar abbreviations (see below), and of shortened date-forms. In addition, no supporting evidence of identification is published here; records of rarities have been assessed by the Records Committee, and full details are filed by the individual recorders. Spurn records are exceptions to this rule, and have been extracted by R. Chislett from the Observatory log, where details and observers' names may be found.

Abbreviations and references used in the list.

ER, NR, WR = East Riding *etc.*; 1st W *etc.* = first winter *etc.*; imm = immature; juv = juvenile; N, NW *etc.* = cardinal compass points; Res = reservoir; SF = sewage farm; B.B. = *British Birds* journal; Nat. = *The Naturalist*; Nelson = Nelson, T. H. (1907): *The Birds of Yorkshire*; NDOR = *Ornithological Report of Northumberland and Durham*; OR = *Y.N.U. Ornithological Report*; Cleveland = the moorlands of V.C. 62.

1. Black-throated Diver. Recorded singly from the ER coast: Filey on 14 Jan & 18 Feb, Flamborough 28 Jan & 13 May, Bridlington 25 Mar & Hornsea 14 Apr (GRB). In autumn at Spurn: on 29 Aug, on 3 days in Sept, 3 on 21 Oct & one to 24 Oct, on 4 Nov & 2 on the 5th.

2. Great Northern Diver. Inland: one in summer plumage at Blackmoorfoot Res on 2 July (DM,CJD). Coast: one at Scarborough up to 4 Apr & 2 on 18 Mar (JRM,AJWa *et al.*). At Spurn one on 12 Jan & 13 May; one dead at Tunstall on 18 Mar (BSP—see Nat, 884:30); Filey one on 7 Apr (RHA); one at Flamborough on 13 May (GRB). Autumn singles at Spurn on 9 & 21 Sept, with one at Hornsea Mere on 16 Dec (GRB).

4. Red-throated Diver. Inland: 2 at Gouthwaite Res on 11 Jan (JF,MW) & one from 11 Mar to 1 Apr (AFGW *et al.*); one at Lockwood Beck Res on 4-5 Mar died when iced in (DGB *et al.*). Coast: recorded in every month, regularly up to late Apr & from late Aug (SBO & many observers).

5. Great Crested Grebe. Breeding attempted on one water in VCs 61 & 62, on 8 in 63 & on 11 in 64. Between mid-Feb & late Apr numbers at several WR waters again greatly exceeded the breeding populations; at Wentworth, where 2 pairs bred 16-17 present in May & June (JIM).

6. Red-necked Grebe. Singles at: Southfields Res on 3 & 4 Mar (RJR,FH, GFO); off Filey on 22 Apr & Flamborough on 27 Oct (GRB).

7. Slavonian Grebe. Hornsea Mere: one on 10, 11, 18 & 24 Nov with a second on 17th (GRB,RHA).

8. Black-necked Grebe. One at Fairburn on 24 July & an injured bird on 22 Nov (CWin). One at Eccup Res on 6 Aug (GR,NFR) & on 2 Oct (GRN). 3 at Redmires Dam (near Sheffield) on 13 Oct (AJWi). One at Flamborough on 24 Nov (JF).

12. Leach's Petrel. One at Spurn on 21-22 Oct (PHGW, JMBu *et al.*).

14. Storm Petrel. 2 seen from a boat in Bridlington Bay, 19 Sept (GRB).

16. Manx Shearwater. An exhausted bird picked up near Halifax on 13 Sept was released at Ogden Res & flew off NW (CWil,CL). Recorded from 8 coastal points from May to Sept with fewer than usual in June & July. Max. c.25 on 26 May off Flamborough, Hornsea (GRB) & Spurn; 18 at Spurn on 11 June, 27 on 27 Aug when Sooties reached their peak; 38 off Flamborough on 14 Aug (AJWi); 47 at Spurn on 12 Sept, 32 off Scarborough on 13 Sept (RHA) & 77 off Hornsea on 19 Sept (GRB). Numbers quoted are totals, not flocks.

21. Sooty Shearwater. Reported only from Flamborough & Spurn between 26 Aug & 27 Oct, with more than usual passing at Spurn: 15 on 26 Aug with 30 the next day & 5 on 7 Sept. At Flamborough, 8 on 18 Sept & 24 on the 19th (GRB).

26. Fulmar. Following the second of the Feb storms, an unprecedented 'wreck' occurred on the coast; at least 347 were found dead in the period 24 Feb-24 Mar. of which 286 were between Flamborough & Spurn (nearly complete search arranged by BSP), the remainder at Scarborough, Whitby & Redcar (GRB,DRS). Birds of all colour-phases were included & there was evidence of a second wreck in mid-Mar of mainly light birds. An account is to be published in the *Nat* & for the whole country

in *B.B.* (JC,BSP). In the week 17-24 Feb up to 5 dark or 'blue' Fulmars were seen at Bridlington, & at Spurn the first of the year on the 17th was also dark (JC). Prospecting of the N. Cleveland Scarp continued near Guisborough (DSS), & of the Holderness clay cliffs where there is still no evidence of sites being occupied (LS,HOB). Between 19 & 27 Aug very large numbers were attracted to the Teesmouth-Tees Bay area by the Sprat wreck. 5 dark birds were included. Most reports were from the Durham side (for details, see *NDOR*). No comparable numbers were seen elsewhere in this period. Last at Spurn on 20 Sept, a normal date for final desertion of Yorkshire breeding sites.

27. Gannet. 6 young counted on 10 nests in the unique colony on 'Jubilee Corner' cliff, Bempton (see *Nelson*, plate facing page 732). Very numerous off Bridlington in Sept, whilst at Spurn the largest count was 180 on 6 Sept.

28. Cormorant. Present in the breeding season at Huntcliff, Ravenscar, Gristhorpe & Flamborough.

29. Shag. Singles at Welton Water on 18 Feb (RJR), Cherry Burton on 4 Mar (RSPCA) & Southfield Res on 14 Apr (RJR). In Mar, a flock of c.60 flew S at Spurn on the 3rd, with other parties making up 83 for the day—'almost all Shags' (JC). Parties of 39, 42 & 49 passed S off Holmpton on 11 Mar (BSP).

30. Heron. VC61: 10 occupied nests at Hornsea Mere (HOB). 62: 6 pairs in Kirkdale, 4 occupied nests at Sproxton (PRE). 64: 9 pairs successful at Whitley (JRM,NC).

38. Bittern. Single birds at: Potteric Carr on 11 Mar (RDM), Fairburn on 29 Aug (CWin) & 18 Nov (WG,GG), Welton Water on 14 Oct & 11 Nov (WBS), Blaxton on 28 Oct (AEP,JB), Woodhouse Mill on 20 Nov (RGH) & at Hornsea Mere on 4 Dec (ADB).

45. Mallard. Numbers reported in the early months were comparable with those of recent years, & were higher than usual at Eccup Res (1010) & Gouthwaite Res (300) in late Jan. A strong N passage was noted at several coastal points on 18 Nov & from then on to late Dec many—but not all—counters reported unusually high numbers: c.640 at Spurn on 22 Dec; c.5,200 at Hornsea Mere on 8 Dec (GRB); of an estimated 8,000 duck spp. disturbed on 23 Dec by illegal shooting within the Humber Refuge (TWH), probably half would be Mallard; 760 at Scaling Dam Res on 2 Dec, Lockwood Beck Res 517 on 9 Dec (ECG) & Teesmouth c.600 on 24 Nov (PJS); Castle Howard c.900 on 6 Dec (MDC). In comparison, the Blaxton peak was only c.300 on 23 Sept (AEP,JB), Gouthwaite Res 550 on 14 Oct (AFGW *et al.*), Fairburn 1,000 in the first half of Oct (CWin) & c.1,250 at Leighton Res on 21 Oct (EEJ). From other Pennine waters, almost all max. counts were in the last six weeks of the year, with the largest c.500 on the R. Ure below Leyburn on 25 Nov (GEA), c.1,000 on Eccup Res on 2 Dec & c.400 at Langsett Res on 24 Dec (DJS).

46. Teal. Most waters held fewer than usual in the early months, but Hornsea Mere numbers of 1,700 on 21 Jan (GRB) & the Derwent floods c.3,000 on 4 & 11 Feb (AFGW,HOB) were very high. Autumn numbers rose after the big duck moves of 3-4 & 10-11 Nov, falling in the late Dec cold spell. At Spurn, 262 passed on 3 Nov & c.85 S on 23 Dec.

47. Garganey. One at Fairburn on the 25th was the only Mar record. At Hornsea Mere: 2 on 8 Apr, 1-2 on 12 May & 4 & 15 June (GRB). Spurn: a pair in the 'Lagoons' area on 18 Apr & singles on 17, 20 & 28 May. In Aug, max. at Fairburn a party of 11 on the 4th (CWin); one at Almholme on the 4th (RJR); one at Spurn on the 9th & 2 at Broomfleet Is. on the 31st (GRB).

49. Gadwall. Reported from 5 ER, 11 WR & 2 NR localities, mainly from July onwards. Always present at Hornsea Mere, 2-4 up to July, breeding suspected (GRB). The Fairburn peak was 58 on 23 June (CWin). Breeding also possible in S.Yorks. Aug 19-26 brought an increase to 8 at Hornsea Mere, & 1-2 near Barnsley (GRA), Sprotborough Flash (WGD), Cherry Cobb (ADB) & Spurn. In Sept, 15 at Swillington on the 4th (GRN), 5 at Southfield Res on the 8th (RJR) & c.12 at Hornsea Mere. Scattered singles during Oct, with Hornsea numbers steady at 21 until a sudden rise to 47 on 11 Nov, finally dropping to 2 on 28 Dec (GRB). Gadwall increases may be due partly to introductions of imported birds. Sedbergh S.S. mention the release of c.900 in the Lake District. The species is to be reared by wildfowling associations with releases probably in 1964 (WT).

50. Wigeon. In Feb & Mar the Derwent valley & the Humber harboured most of the county's birds. Estimates on the lower Derwent floods and meadows were 4-5,000 from 11 Feb to 4 Mar (AFGW,HOB). 2-5 summered at Hornsea Mere (GRB)

& up to 4 stayed at Teesmouth until 2 June (TBR); 7 at Spurn on 3 June & 3 on 7 July, one at Scaling Dam Res on 15 & 26 June & 5 July (DGB) & one at Almholme on 14 July (RJR). Autumn passage was heaviest at Spurn on 30 Oct (200 S), c.300 on 2 Nov & c.600 on 3 Nov. No flocks in the late months reached four figures.

52. Pintail. 1-10 in the early months at 8 localities with max. 20 at Fairburn on 24 Mar (CWin) & c.60 in the Derwent Valley on 4-11 Feb (AFGW, HOB). Bred near Driffeld, the first breeding record since 1938 (GB, PJM). 1-11 in the period 15-17 Sept at Eccup Res & 4 coastal localities. Scattered records of 1-2 in the last 3 months with 19 at Cherry Cobb on 22 Dec (GRB).

53. Shoveler. Fluctuations noted at the few waters with really large flocks: at Fairburn, an increase from 70 on 13 June to 120 on the 23rd, max. 180 on 14 Aug (CWin). Southfield Res c.70 on 25 Aug, 120 on 20 Sept, 84 on 27 Sept & 3 on 14 Oct (EWE, RJR). Hornsea Mere 72, of which 29 came in from the sea, on 13 Jan, 54 left for the sea on 10 Mar, 96 present on 16 Mar & one on 26 Apr; 86 on 1 Sept, 12 on the 15th, 75 on 22 Dec & 26 on the 28th (GRB). In addition to c.50 in the Derwent Valley on 11 Feb & 59 on 16 Nov (GRB, HOB) & 20 at Spurn on 26 Aug, parties of up to 10 were seen at 17 other waters, mainly in VC63.

55. Scaup. 1-3 at 4 WR waters between 15 Feb & 30 May (RJR *et al.*). Coast: 1-4 Jan to May at Spurn, Hornsea & Bridlington (GRB, SBO). Hornsea Mere 19 on 25 Apr & 1-2 on 24 May, 16, 24 & 30 June. In Aug, 2 at Southfield Res on the 4th (RJR) & 2 at Woodhouse Mill on the 10th (RGH, DBC). 1-5 at 5 localities in Sept & Oct, with 14 at Hornsea Mere on 20 Oct (GRB). Singles on 10 Nov at Filey Brigg (RHA), Ripley (MRS) & Almholme (TG), & at Ulley Res on the 11th (RGH). Coastal passage on 18 Nov: 61 passed S at Spurn, 74 N at Hornsea & 37 flew in to Hornsea Mere from E (GRB). On the Durham side of Tees Bay, 1,063 flew N (see *NDOR* for details). Inland on the 18th, one at Winterset Res (CEA, DJS) & 3 at Fairburn (CWin). 1-4 at 4 waters to the year end, with 18 moving N at Atwick on 22 Dec (GRB) & 57 S at Spurn on 25 Dec (GRE).

56. Tufted Duck. No broods seen at Gouthwaite Res (AFGW). The Hornsea Mere peak was 497 on 21 Jan (GRB) & other spring max. were 43 at Winterset Res on 3 Mar (JSA) & 78 at Fairburn on 6 Mar (CWin). Autumn & early winter flocks higher: 43 at Eccup Res & 53 at Woodhouse Mill on 10 Nov, 160 at Fairburn on 17 Nov; 680 at Hornsea Mere by 17-18 Nov, 177 on 28 Dec & 44 on 29 Dec.

57. Pochard. Most waters failed to reach the high figures of 1961. Peaks: 250 at Fairburn on 27 Jan & 140 on 17 Nov (CWin); 200 at Welton Water on 25 Jan (EHW), 713 at Hornsea Mere on 21 Jan & 870 on 17-18 Nov (GRB); 95 at Worsbrough Res on 27 Jan & 172 on 25 Nov; 95 at Walton Hall Lake on 11 Mar (JSA). 24 at Leighton Res on 21 Oct (EEJ) were 'unusual' & 124-126 at Bretton Park on 22, 25 & 29 Nov 'unprecedented' (RLB, JED). At 7 other waters, mainly E. Pennine, smaller autumn numbers with a suggestion of a mid-Nov influx.

58. Ferruginous Duck. A ♀ at Spurn on 3 Nov (RFD *et al.*).

60. Goldeneye. 250 at Hornsea Mere on 31 Mar & 19 Apr (GRB) by far the largest count; 31 at Fairburn on 17 Apr (CWin) & 23 at Gouthwaite Res on 18 Mar (AFGW); 17 at Scaling Dam Res on 5 Mar & a pair, the last of spring, on 24 May (DGB). Summer records: one at Fairburn on 23 June & 5 on 5 July (CWin); one at Hornsea Mere on 30 June & into July & Sept (GRB). After one at Blackmoorfoot Res on 21 Sept (DM), max. were: 17 at Gouthwaite on 14 Oct (AFGW), c.250 at Hornsea Mere on 11 Nov & 17 at Scaling Dam Res on 17 Dec. 1-0 at 26 other waters in both winters. Small numbers included in the coastal duck movements of 10-18 Nov with several inland on the 18th.

61. Long-tailed Duck. Inland: one at Stocks Res on 15 Mar (APi) & 3 on 30 Dec (JKF); one at Fairburn on 10 Nov (CWin). Coast: 1-3 at Hornsea Mere to 1 May (GRB *et al.*); 2 at S. Gare on 3 Feb, a ♂ in breeding plumage off Redcar on 10 Feb & a ♀ or imm on 23 Apr (DGB, DRS); one at Filey Brigg on 18 Feb (GRB). In autumn: 2 ♂♂ at Flamborough on 11 Nov (HOB); at Spurn, 5 on 11 Nov, one on 17 Nov & one on 1-2 Dec; one at Filey & 4 N off Hornsea on 18 Nov (GRB).

62. Velvet Scoter. Coast: 7 off Bridlington on 11 Feb (GRB), 2 at Redcar on 23 Apr (DRS) & one at S. Gare on 20 May (WN); an imm off Fraisthorpe on 27 June (JF), 4 adult ♂♂ at Flamborough on 15 July (HOB) & one at Spurn on 28 July; 1-4 between 2 Sept & 18 Nov at several points, with 21 S off Filey Brigg (RHA) & 14 at Spurn on 10 Nov, & 21 N off Flamborough on 18 Nov (GRB). Inland: one at Eccup Res on 20 Sept (GRN *et al.*), 2 at Fairburn on 12 Oct (CWin), one at Ulley Res on 10 Nov (ACri *et al.*) & one at Blackmoorfoot Res on 24 Nov (PGRB).

64. Common Scoter. Inland: one at Fairburn on 25 Mar, 2 at Southfield Res on 20 Apr, one at Gouthwaite Res from 5-13 May & 4 at Eccup Res on 28 May, 8 on 25 & 2 on 26 June; 10 at Winterset Res on 3 June & one at Ardsley Res on 30 June. A marked influx at 11 WR Pennine waters in first half of July, max. 26 at Eccup Res on the 8th, & at Gouthwaite Res 21 on the 8th & 57 on the 11th; parties of 36 flying E at Fairburn on 19 July (CWin) & c.45 flying W near Kirkheaton on 29 July (JC). Smaller numbers in autumn until 1 Dec, max. 34 at Gouthwaite Res on 15 Aug & 40 (all ♀♀) at Fairburn on 10 Nov, with 1-9 at 4 waters between 11-25 Nov. Coast: reported in all months. 55 left the Humber to E, 53 flew S whilst 38 remained all day at Spurn on 22 Apr. Passage noted at Spurn (S) on 18 Nov & N in Tees Bay & off Redcar on 18 & 24 Nov.

67. Eider. Inland, an imm ♂ at Gouthwaite Res on 10 Nov, the first record for the area (MRS,AS). Coast: 1-6 in all months, most regularly at Flamborough, with 9 & 13 at Redcar on 4-5 & 10-11 Feb. Heavy passage: 7 at Filey Brigg on 10 Nov & 31 on the 11th, 20 at Flamborough & 22 at Spurn on 11 Nov; at Spurn, 41 (9 ♂♂) passed N on 1 Dec & 13 (3 ♂♂) on the 2nd, with 9 on 22 Dec. Single adult ♂♂ once in each month Feb & June and twice in Nov.

69. Red-breasted Merganser. Inland: 6 at Gouthwaite Res on 8 Aug, one on 10 Nov & 2 on 11 Nov (AFGW *et al.*); 2 at Eccup Res on 10 Nov (MD,GRN); 2 at Swillington on 13 Nov (RTP) & one at Ardsley Res on 2 Dec (RHard). Coast: 1-5 up to late May, with up to 9 at Spurn on 22-24 Apr; one at Filey on 1 July & 3 at Fraisthorpe on 2 July (GRB,JF). At Spurn 1-7 from October to the year end, including 10-11 Nov. Bred at one locality.

70. Goosander. Max. in both winters at the 3 main waters: 53 at Stocks Res Jan-Mar & 86 on 30 Dec; 40 on Eccup Res on 3 Mar & 11 on 28 Dec; 97 at Hornsea Mere on 10 Mar & 58 on 22 Dec. 1-4 at 9 other inland waters, Jan-Apr & Nov-Dec; 6 at Gouthwaite Res & 7 at Winterburn Res on 14 Apr. Coast: 4 at Spurn on 20 Oct, one on 24 Nov & 2 on 9 Dec; one off Filey on 15 Dec.

71. Smew. ♂ at Leighton Res on 16 Jan (PY); Hornsea Mere: 1-3 ♀♀ from 6 Jan to 6 Apr, with a ♂ & 3 ♀♀ on 10 Feb (GRB,ADB *et al.*). ♀ at Harewood on 24 Feb (GRN); one at Kirkby Fleetham 4-13 Mar (GEA); one on Lockwood Beck Res 4-14 Mar (ABar) & a ♂ & 4 ♀♀ at Roundhill Res on 15 Mar (PY). In autumn, 1-2 ♀♀ on Hornsea Mere 10-24 Nov (GRB) & a ♂ N off Hornsea on 18 Nov, 2 ♀♀ at Malham Tarn on 8 Dec (KH) & 3 ♀♀ at Fairburn on 31 Dec (CWin).

73. Shelduck. In the two estuaries: Tees max. 599 on 14 Jan, 648 on 10 Feb, 400 on 24 Mar, 171 on 9 Apr & 128 in July. Humber max. 71 at Spurn on 27 Mar & 58 on Apr 15; c.100 at Patrington Haven on 5 May, 234 at Cherry Cobb on 15 June. Tees autumn max. 220 on 10 Nov & 373 on 24 Nov. Humber: usual small numbers below Hull; up to c.150 in the upper reaches, but c.600 on 23 Dec during shooting disturbance in the Refuge, the largest count ever made on the Yorks side. (There is a large & apparently discrete population on the Lincs side near Read's Is.)

Parties left Spurn to the E on 21 July & 27 Aug. Coastal moves: 7 off Filey Brigg & 7 off Flamborough on 11 Nov, & 3 off Hornsea on 18 Nov. 27 at Hornsea Mere on 17 Sept, & 1-9 at 11 WR waters in all months excepting June, Oct & Nov.

75. Grey Lag Goose. Reported Jan-Apr, mainly in ER, but one at Eccup Res on 3 Mar, one at Gouthwaite Res from 23 Apr-2 May & one at Scaling Dam Res on 2 May; c.20 at Bubwith on 28 Jan; Hornsea Mere: 28 on 27 Jan, 20-21 on 10 & 24 Feb & 6, 10, 13 Mar, 11 on 24 Mar; 38 at Cherry Cobb on 7 May; 1-6 at other localities including Spurn. Autumn: 9 at Castle Howard on 19 Aug, one off Filey on 17 Sept, one at Redcar on 10 Oct, 1-4 at Hornsea Mere on 4 & 17 Nov, 1 & 8 Dec. 2 at Eccup Res on 6 Dec.

76. White-fronted Goose. 2 flying E at Spurn on 21 Dec & one at the Point there on 31 Dec.

78. Pink-footed Goose. Skeins of up to c.200 in several localities in Jan-Mar. Humber Wildfowl Refuge: a single (pricked?) bird during Aug, the first of autumn 102 on 17 Sept; c.2-3,000 between 26 Sept & 21 Nov with an increase to c.6-8,000 from 14-26 Oct, & up to 400 to the year end. The roost was either on Whitton Sand (usually in Lincs) or the sandbank attached to Broomfleet Is. Reported feeding on the Wolds & on low ground near the estuary (TWH). Fewer autumn reports than usual at Teesmouth & Spurn; 16 inland records of skeins included one of c.60 flying NNE at Eccup Res on 18 Sept (MD).

79. Snow Goose. The bird of 1961 was last seen at Scaling Dam Res on 9 Jan. It was considered to show the characters of the Lesser Snow (TBR,PJS).

Ross's Goose. (*Anser rossii*). One at Harewood in late May & on 1 June; at Gouthwaite Res on 5 June to 26 July; at Ripley from 18 Aug & at several localities near Knaresborough into Oct; & at Swinsty Res on 20 Oct (AFGW *et al.*). The bird was ringed and was lame in the left leg (but no details of the Swinsty bird), presumably the individual reported in the Lune Valley from 1961 & almost certainly an escape. See *B.B.*, 55:570. The first Yorks record.

80. Brent Goose. All records in VC61: one at Hornsea Mere on 13 Jan & 6 on 11 Feb (GRB); 2 at Spurn on 27 Jan & 4 on the 30th; 2 ('pale') at N.Ferriby on 23 Feb (EHW), one at Flamborough on 10 Mar (GRB); at Spurn, 4 on 20 Apr & one on 21-23 Apr, 3 on the 24th & one on 1 May. One off Filey Brigg on 16 Oct & 3 passing S on 10 Nov (RHA); 2 at Spurn on 21 Oct, 7 on 22nd, 6 on 3 Nov & 5 on 11 Nov, 2 moving S off Kilnsea on the 25th (ACre), 6 (3 'pale') on 1 Dec, one 'pale' on 2 Dec & one on the 7th. 4 off Withernsea on 18 Nov. (BSP).

81. Barnacle Goose. 3 flying N over S.Gare on 13 Oct (DGB). One at Gouthwaite Res on 5 Nov (MBT). A weak bird at Hornsea 11-18 Nov (GRB).

82. Canada Goose. Max. in VC63: 121 at Wentworth on 16-26 Aug, 119 at Bretton Park on 30 Sept, c.80 at Nostell Dam on 4 Nov, 84 at Walton Park Lake on 10 Nov, & c.62 flying over Winterset Res on 24 Nov. VC64: c.380 at Ripley on 4 Oct. VC65: c.400 at Leighton Res on 29 Sept. Several records of smaller flocks at inland waters & at Brough, Hornsea Mere & S.Gare.

84. Mute Swan. Fairburn max. were 105 & 108 on 4 & 12 Aug. Hornsea Mere 100 through July & Aug. Welton Water 37 on 11 June. 4 other waters held smaller max. *in winter*.

85. Whooper Swan. Parties apparently wintering from 1961 at: Fairburn max. 7 to Apr (CWin) & in the Dearne Valley flashes max 19 on 11 Mar to 5 at Broomhill on 31 Mar (CB *et al.*). In Jan, 23 on the 9th at Stocks Res (JKF,APi), & 1-6 at Hornsea Mere and Spurn on 3 days. Reports of 3, 12 & 13 from 3 WR waters from 11-15 Mar. Autumn: 2 at Fairburn on 20 Oct, 3-6 at Hornsea Mere (25th), Hemsworth Woodhouse Mill (27th) & Swinsty Res (28th). 1-18 at 8 WR waters during Nov, max. 31 at Broomhill on 24th (DJS). A second influx in the period 5-9 Dec: 12 passed S at Spurn on the 5th (GRE); 8 S off Filey (RHA), 21 (no juvs) to Hornsea Mere (GRB), 5 at Broomhill (CB) & one at Woodhouse Mill on the 8th; 10 wild swans flew S over Worsbrough Res (DJS) & a mixed flock of c.30 Whooper & Bewick's at Hoyle Mill Dam on the 9th (MNR). A larger, late Dec move mainly of flocks flying W or NW: 6 (one juv) W at Spurn, 10 on the sea at Scarborough (TMC) & 17 NW over Ilton Res (PY) on 22 Dec; 35 NW at Rossington on 23 Dec (RDM,RM); 22 W at Bottomboat on 24 & 27 Dec (CEA); 16 at Fairburn on 25 Dec (CWin); 9 at Ardsley Res on 25-26 Dec (JC), 17 on the 27th (CEA); 47 at Stocks Res (JHIL,JKF) on 26 Dec, & 6 flying over Ardsley Res on the 31st (RHard). Single dead birds were left at Hornsea Mere on 8 Dec (GRB) & a juv at Broomhill on 26 Dec (CB).

86. Bewick's Swan. 5 records in Jan, max. 15 at Fairburn on 4 Jan (CWin); 17-21 on the Derwent floods 4-18 Feb (3 imms) & 4 at Blackmoorfoot Res on 17 Feb (DM). 34 flew NE at Beighton on 11 Mar (RGH), with 2-8 at 6 other localities in Mar. 2 imms at Patrington Haven on 5, 6 & 13 May (ACre). An adult at Hornsea Mere on 25 Oct (MD) & 7 over Hemsworth on 29 Oct (MNR); 1-4 in the WR in Nov & early Dec. 2 Dec influxes: 25 at Gouthwaite Res on 8-9 Dec (MBT *et al.*); 19 & 66 (no juvs) to Hornsea Mere on 8 Dec, 58 still present on the 9th but left at dusk (GRB); 15 at Blackmoorfoot Res on 15-16 Dec (PGRB *et al.*). The second influx: 6 at Chelker Res on 21 Dec (ESS,JRR); 34 flying NW at Langsett Res (CB,DJS) & 6 (no juvs) at Aughton on 23 Dec (GRB); 7 at Eccup Res on the 24th; 25 at Fairburn, 5 at Stocks Res & 25 flying over Harrogate on 26 Dec (MD,PJC *et al.*); 21 at Stocks Res on 30 Dec & one at Spurn on the 31st.

91. Buzzard. 3 pairs reared young in the NW, with some sites not occupied. E of the breeding area, 2 in Jan & single buzzard spp. reported with increasing frequency from May to Dec.

93. Sparrowhawk. 3 pairs bred in VC63 & one (possibly 2) in 64. Single birds, occasionally 2, reported in all months excepting Feb from 2 localities in VC61, 4 in 62, 5 in 63, & 7 in 64 with 'nil' reports for 3 VC 64 areas. Coast: one at Spurn flying S on 10 & 20 Apr & singles on 25 Sept & 5, 6 & 18 Nov; one S off Dimlington on 4 Aug.

99. Marsh Harrier. From Hornsea Mere, records between Apr & July covering 5 individuals: an imm on 1 & 8 Apr, a ♀ on 20-21 Apr & an adult ♂ on 22 & 27 Apr; a ♀ on 1 & 3 May, an imm on 6 May & an imm from 3 June to 1 July & on 18 July (GRB,AHR *et al.*). A 'cream-crown' flying S at Spurn on 22 Apr & a ♀ on 22 Aug.

Inland: one at Fairburn on 13 Aug (JKF) & a ♀ on 21 Aug (CWin); one over Almholme on 11 Nov (RJR).

100. Hen Harrier. One at Ilton Moor on 28 Feb (PY); 2 separate adult ♂♂ moved S at Spurn on 6 May & a 1st summer ♂ on 6 Aug; a ♀ in Nidderdale on 4 Nov (AFGW,PJC); a sub-adult ♂ at Liverton Rails (Cleveland) on 24 Nov (JC,DRS) & a ♀ near Blakey Ridge (Cleveland) on 2 Dec (MDC).

102. Montagu's Harrier. A ♀ at Spurn on 20 May.

100/102. Harrier spp. 'Ringtails' at Spurn on 24 & 30 Aug, & at Welwick salting on 26 Aug (EHW).

103. Osprey. One at Spurn on 23 May (PJM) & at Hornsea Mere on 28 May (GRB).

104. Hobby. One at Spurn on 5 Sept (RFD *et al.*)

105. Peregrine. No proof of breeding & absent from 3 known sites which were used by Ravens. Single birds in 3 Pennine localities. One near Middlesbrough on 14 Feb (DRS), one at Bempton on 1 July (HOB) & one at Spurn on 30 Aug & 23 Sept.

107. Merlin. Reported from 2 Cleveland & 6 Pennine localities, but no proof of breeding & birds could not be found in some known breeding areas. Singles Jan-May & Aug-Dec at 3 places in the central plain & 3 on the coast—mainly Spurn.

110. Kestrel. Reports suggest that the species is holding its own in hill country, although in some Pennine areas breeding pairs were far fewer than in the vole plague of 1961. Autumn increase first noted at Spurn on 4 Aug with 10 present on 12 & 27 Aug, c.20 on 5 Sept & 18 on 7 Sept; smaller numbers at other coastal points in this period. Inland max: 5 near Stainland on 12 Aug (JED), 10 in Nidderdale on 30 Aug (A&DS) & 20 counted in an area 6 miles square near Sedbergh on 3 Sept (Sedbergh S.S.).

113. Black Grouse. Reported from 5 Pennine localities in VC64 (max. 11 ♂♂ & 2 ♀♀ at a lek) & from 2 in VC65 (max. 5 ♂♂—KH *et al.*).

115. Red-legged Partridge. W of the Boroughbridge-Leeds-Sheffield line: bred near Eccup; one at Rudding (Harrogate) in June; one shot near Ilton on 26 Dec.

120. Water Rail. No records at Spurn between 23 Apr & 27 Aug. Only Fairburn & Hornsea Mere reached double figures. The usual scattered reports of 1-3 in both winters, but 5 *seen* at Potteric Carr on 25 Nov (RDM).

125. Corncrake. One at Flamborough on 12 May (GRB). Pennines: several calling in the Sedbergh area & one killed by mower (JRH, Sedbergh S.S.); heard at 2 places near Austwick (MRS *et al.*) & one at Gouthwaite Res from 5 June to the month end (MBT *et al.*). One found dead under wires at Ogden Res on 10 Oct (CWil).

127. Coot. Hornsea Mere: 624 on 21 Jan, c.700 Oct-Nov c.1,700 on 8 Dec, c.950 on 16 Dec & c.650 on 28 & 30 Dec. Fairburn: c.800 on 29 Sept & c.1,000 on 20 Oct. Scaling Dam Res numbers again high—159 on 25 Nov. 'Exceptional' numbers in autumn at Newmillerdam (54 on 4 Nov) & at Bretton Park (max. 240) on 2 Dec. 26 on the Humber shore at Hull on 27 Dec early in the cold spell.

131. Oystercatcher. One at Gouthwaite Res & one on the ice of Blackmoorfoot Res on 7 Jan. Bred at Spurn, & a pair present at Sunk Is; a nest found at Teesport; a pair bred again on the Rye near Helmsley & unsuccessfully on the Riccal at Harome. At Spurn the largest numbers (c.100) were between 21 & 31 Aug; 102 at Staithes on 31 Aug. Inland: 20 flew in to Gouthwaite Res from SE on 15 Aug; 10 at Lindley Res on 25 Aug & 1-2 at 4 waters in VC63 during Aug. The largest flock (as usual) was in the Teesmouth area—c.360 at Coatham Sands on 28 Oct.

133. Lapwing. Absent from many districts to mid-Jan, returning during the last week of the month. Many reports of a poor breeding season, with small broods & late young. Coast: from 16-24 June, birds coming in from E or passing S (SBO, DGB *et al.*); passage between 26 Sept & 15 Oct noted from Spurn to Redcar (also NW passage over Hull on 15 Oct & large numbers in the Doncaster area on 20 Oct); a second autumn move from 2-6 Nov, heavy (S) at Spurn on 3-4 Nov & S at Filey Brigg on 3 Nov. Inland: 2 W movements widely reported in the periods 5-9 Dec & 23-27 Dec, both coinciding with cold spells, which virtually drained the county of Lapwings by the year end.

134. Ringed Plover. Spring passage: small numbers in WR from 12 Mar, max. 18 at Fairburn on 17 May; up to c.500 at Cherry Cobb through May, with c.1,300 (exceptional numbers) on 21 May (GRB). A pair hatched young by a reservoir in VC64; 8-12 pairs attempted to breed at Spurn. Low autumn figures for the Humber: 50-70 at Spurn from 4 Aug to 2 Sept; 83 max. at Cherry Cobb on 17 Aug. Small numbers in VC63 from 8 July to 29 Sept, excepting at Winterset Res (as in 1960

& '61, in fine condition for waders) where birds were present from 28 July to 29 Sept, 10-20 from 18 Aug to 15 Sept with 40-66 from 25 Aug to 7 Sept. One near Sheffield on 10 Nov.

135. Little Ringed Plover. 15 pairs attempted to breed in 7 localities; as in 1961, bred by a reservoir; present at 3 other sites with no proof of breeding. Earliest date was 8 Apr at 2 sites. One at Spurn on 8 May; one in VC62 during May is the first record for the vice-county. Last reported from breeding areas from 2-8 Sept. 2-3 juvs at Beverley SF on 23-25 Sept (DAG, FdeB).

139. Grey Plover. Singles at Fairburn on 21 Jan & 26 Aug (CWin) the only inland records. Spring: max. c.120 on 6 Mar at Spurn; at Cherry Cobb an increase noted on 4 May, max. 218 on 21 May. Autumn: several moulting adults at Cherry Cobb on 20 July, c.50 in breeding plumage on 2 Aug; later numbers very low, max. c.80 at Spurn on 15 Sept.

140. Golden Plover. First reported on the Sedbergh moors on 18 Mar, 3-4 weeks later than normal (Sedbergh S.S.).

142. Dotterel. One on Urra Moor (Cleveland) on 21 Apr (APa).

143. Turnstone. Inland: 3 at Winterset Res on 2 May (JDP) & one on 20 May (CEA); one over Blakey Rigg (Cleveland) on 16 May (PRE); 3 at Scaling Dam Res on 1 June (DGB); one at Deer Hill Res on 22 July (RCr,CJD) & at Whiteholme Res on 2 Aug (VSC,IM); 2 at Fairburn on 15 Aug & one on 18 Sept (CWin); 1-3 at Winterset Res 28 Aug-8 Sept (CEA *et al.*); one at Scaling Dam Res on 2 Sept (HPKR) & 2 at Eccup Res on 3 Sept (MD). At Spurn, an increase in mid-Apr, max. in spring c.80 on 8 May; autumn 60-100 on 4-6 & 25-31 Aug, 18 Sept & 18-19 Oct, with c.70 on 6 Nov the last sizeable passage.

147. Jack Snipe. 1-3 in both winters in many localities, with max. 4, 5 & 7 in Oct-Dec. Not recorded between 16 May & 31 Aug.

148. Woodcock. Coast: 1-4 at Redcar, Flamborough, Bridlington & Spurn in the early Jan cold spell; first of autumn at Spurn on 19 Sept, the main influx between 7-11 Nov noted at many places, with singles to the month end; singles at Spurn to the end of the year.

151. Whimbrel. One at Staithes on 14 Jan & 17 Feb, where one was present throughout autumn 1961 (HPKR,TBR). Spring passage between 19 Apr (Spurn & Hornsea) & 24 May, mainly lower Humber, max. 10; 1-2 at 5 inland localities & 13 at Fairburn on 2 May (CWin). One at Cherry Cobb on 16 June (GRB). Autumn passage from 30 June (2 over Eston Hills-DGB) to one at Cherry Cobb on 11 Nov (GRB), most numerous through Aug; 35 regularly at Teesmouth (TBR), a flock of 52 S off Filey Brigg on 18 Aug (RHA); at Spurn, 25 on 5-6 Aug, 39 on 22 Aug & 56 on 26 Aug; fewer in Sept, but 11 on 13 Oct & one on 22 Oct. Inland: 1-5 at 7 places, & 16 at Eccup Res on 20 Aug (MD *et al.*).

154. Black-tailed Godwit. Evidence of a flock wintering from 1961 on the lower Humber at Cherry Cobb: 7-8 in Jan, no visits Feb, 2-3 in Mar, 5-10 in Apr, 8-17 up to 18 May, 4 'grey' birds on 19 May & 22 June (GRB,HOB). Singles at Patrington Haven on 24 Mar, Easington on 21 Apr (EHW) & Spurn on 1 May; 2 at Welton foreshore—upper Humber—on 24 Mar (EHW). Inland, one at Gouthwaite Res on 6-8 June (AFGW *et al.*). Autumn: singles only on 5 dates between 20 July & 16 Sept at Cherry Cobb & at Spurn on 12, 25 & 26 Aug; at Winterset Res on 25 Aug (CEA, JAB) & at Thrybergh Res on 7 Oct (RFEB).

155. Bar-tailed Godwit. Humber: flocks in the lower estuary unusually large in the early months—c.150 at Cherry Cobb on 27 Jan (GRB) & at Spurn on 28 Jan; c.250 at Patrington Haven on 22 Apr (ACre); c. 350 at Cherry Cobb on 8 May & 78 on 16 June (GRB). In autumn reached 114 at Cherry Cobb by 14 Aug, c.150 on 11 & 14 Nov & 61 on 22 Dec (GRB,HOB); very few at Spurn, c.50 on 6 Dec & c.100 on 23 Dec. Inland: one at Gouthwaite on 10 Mar (JGWR) & a 'red' bird on 25 July (PJC); one at Winterset Res on 3 Sept (JAB,RNR).

156. Green Sandpiper. One near York on 1-2 Jan (TH,NO) & at Spurn on 4 Jan; 1-3 in the Dearne Valley & at Adwick-le-Street SF on 7 & 28 Jan, 3 & 4 Feb, 18 & 24 Mar & 8, 15 & 22 Apr (TMC,RJR *et al.*); the first at Fairburn on 19 Apr (CWin), 4 at Hornsea Mere on 19th & one on 23 Apr (GRB). One at Coatham Marsh on 1 June (WN). After one at Flamborough on 24 June (GRB), 1-8 widely reported July-Sept; records of 1-3 in Oct-Dec from WR only, at 5 localities in Oct, 3 in Nov & one at Staveley in Dec (NEA) & one near Worsbrough Res on 2 & 30 Dec (DJS *et al.*)

157. Wood Sandpiper. Spring: one at Spurn on 7, 8, & 19 May & one at Winterset Res on 20 May (CEA). One at Spurn on 9 June. Between one at Fairburn on 29 July (CWin) & the last at Spurn on 1 Oct, 1-3 at 6 ER & 5 WR localities, most in Aug & particularly from 15-25 Aug—a fairly heavy autumn passage.

159. Common Sandpiper. One near Masham (RCh) & Ossett (AF,RW) on 12 Apr. Coastal passage between 20 Apr & 25 May with no noticeable peaks. Breeding suspected at Blaxton (AEP,JB). Autumn passage: one at Brough on 23 June, largest numbers from 14-19 Aug; the last at Catcliffe, Hornsea Mere & Spurn on 29 Sept, 2 at Gouthwaite Res on 2 Oct & one at Staveley on 6 Oct.

162. Spotted Redshank. Records in recent years suggest a tendency to winter in the lower Humber: at Cherry Cobb (*see also* 1961 OR) 5 on 11 Jan & 2 on 27th, no visits Feb, one on 3 & 17 Mar, 2 on 21 Apr & one on 28 Apr; 2 at Patrington Haven on 5 May & one at Spurn on 6 May (GRB,HOB,SBO).

A heavy & widespread autumn passage commencing with a summer plumage bird at Fairburn on 9-10 July; many reports of singles up to mid-Aug & from then on to mid-Sept, 1-6 at Scaling Dam Res, 8 WR (mostly E.Pennine) & 8 coastal & Humber localities. Inland max. 8 at Bottomboat on 1 Sept (CEA,JABo) & 4 at Winterset Res on 8 Sept (DJS). Humber: up to 6 at both Cherry Cobb & Patrington Haven where a remarkable party of 17 on 23 Sept (ACre) was the largest party ever reported in the county. The last inland were singles at Winterset Res on 16 Sept (JABo) & at Fairburn on 30 Sept (CWin). One off Filey Brigg on 4 Oct (RHA), 1-2 at Spurn up to 14 Oct & one at Cherry Cobb on 11 & 24 Nov (GRB).

165. Greenshank. Spring: one at Flamborough on 10 Mar (GRB) & on 26 & 28 Apr (AJWi); at Spurn, one on 20 Apr, 3 on 21st, 3 on 3 May, 4 on 7 May; one at Cherry Cobb on 7 & 21 May (GRB). In June, singles at Spurn on 9th, at Cherry Cobb on 16th & Gouthwaite Res on 20th (GRB,AFGW). A strong autumn passage widely reported from many coastal & inland localities, apart from the favoured saltings, between 1 July & 20 Oct; largest numbers in Aug, with 7-11 at Blackmoorfoot Res, Woodhouse Mill, Fairburn, Swillington & Winterset Res; 16 at Cherry Cobb on 12 Aug. Smaller numbers through Sept, max. 10 at Cherry Cobb on 15th. 1-2 up to 20 Oct at 2 ER & 5 WR localities; the last at Spurn on 2 Nov; one at Scout Dike Res on 11 Nov (ANS) & one at Patrington Haven on 2 Dec (ACre).

169. Knot. Spring: singles inland at Worsbrough Res on 18 Mar (CB,DJS), at Aldwarke S.F. on 3 Apr (WGD) & at Settle in early May (Giggleswick S.S.). The large tidal flights of 'grey' birds at Patrington Haven ceased in the period 19-23 Apr (HOB). An early autumn passage mainly of 'red' birds first noted at Filey Brigg—37 passing S—& one at Winterset Res on 7 July (RHA,JSA); small numbers moved S on the coast from 20-28 July; c.50 at Patrington Haven on 21 July, c.120 at Cherry Cobb on 2 Aug & c.500 'all red' on 4 Aug (HOB). Inland: 2 at Gouthwaite Res on 22 July & one to 15 Aug (AFGW *et al.*); singles at Almholme (RJJR) & Winterset Res on 4 Aug (CEA,DJS); 2 at Fly Flatts Res on 21 Aug & 7 on 27th, 2 at Thornton Moor Res on 21 Aug (DAS); at Winterset Res, 8 on 5 Sept & one to 15th, 2 on 9 Nov & 4 on 18 Nov (JC *et al.*); one at Gouthwaite Res on 17 Nov & over Ardsley Res on 23 Dec (RHard). Large flocks as usual in both winters in both Tees & Humber, though at Spurn not reaching c.4,000 until mid-Nov. 130 passed N off Hornsea on 18 Nov, one of the 'duck days' (GRB).

170. Purple Sandpiper. Present in both winters at Filey Brigg, less regularly at Bridlington & increasingly at Sewerby-Flamborough. Other records: 19 at Staithes on 10 Feb (HPKR), 2 at S.Gare on 15 Sept, 1-2 at Spurn on 19-20 Sept; one found dead under wires near Castleford on 23 Sept (per RFD); one by Hornsea Mere on 20 Oct (GRB), 5 at S.Gare on 24 Nov & 2 on 2 Dec (DRS); one at Spurn on 5 Nov & 9 Dec.

171. Little Stint. One at Woodhouse Mill on 17 May (RGH). Autumn passage small, between 12 Aug (Cherry Cobb) & 25 Oct (Spurn), with a minor influx on 29-30 Sept. Inland, singles at Fairburn on 18-20 Aug (CWin), Scaling Dam Res on 19 Aug (TBR), at Thrybergh Res on 26 Aug & at Winterset Res on 25, 26 & 29 Aug (CEA, JBH *et al.*); at Woodhouse Mill on 29 Sept, Winterset Res on 29-30 Sept, & 2 at Stanley SF on 29th & 4 on 30 Sept (RGH,MNR *et al.*). 2-9 at Cherry Cobb from 9-16 Sept (GRB), one at Flamborough on 29-30 Sept (AJWi). At Spurn 3 on 22 Aug & one in the Lagoons area on 29-30 Sept & on 1, 6 & 7 Oct.

179. Curlew Sandpiper. One at Cherry Cobb on 18 May & 5 on 21st (GRB, HOB). Autumn: a remarkable total of c.50 adults varying from full breeding dress to full winter at Cherry Cobb on 2 Aug (HOB)—the largest flock 17; 3 on 12 Aug &

one on 30 Aug (GRB); at Spurn, one on 29-30 Aug; 2 at Broomfleet Is on 31 Aug (GRB); one at Winterset Res on 3, 5 & 16 Sept (JABo,CEA *et al.*); & one at Cherry Cobb on 29 Sept.

181. Sanderling. Inland: singles in May at Scaling Dam on 7th & 24th (PHA, DGB), at Settle SF through the month, with 2 in first week (Giggleswick S.S.); at Fairburn on 17th & 19th, 4 on 18th (CWin), Winterset Res on 20th (CEA) & Aldwarke SF on 21st (JMBa). Autumn: one at Deer Hill Res on 22 July (DMal); at Gouthwaite Res—one on 21 July, 3 on 22nd (when 95 recorded at Spurn), & 2 from 4-11 Aug (AFGW); one at Almholme on 4 Aug (RJR); 4 at Winterset Res on 4 Aug & one on 11 Aug, 7 & 16 Sept (CEA,JABo,DJS). C.40 moved N off Hornsea on 18 Nov (GRB)—see also Knot.

184. Ruff. Singles at Scaling Dam on 11 May (PJS) & 8 June (DGB) & at Winterset Res on 2 June (CEA). A good autumn passage (see also NDOR) from 8 July to 30 Sept, greatest numbers between 8 & 30 Aug & smaller parties from 1-15 Sept with a small influx 27-29 Sept. Inland max.: 9 at Scaling Dam in Aug (DGB); 9 at Almholme on 1 Sept (RJR), 7 at Blaxton from 8-27 Aug (AEP,JB), 11 at Stanley SF on 19 Aug (CEA,JABo) & 6 at Winterset Res on 1 Sept (DJS); also smaller numbers at these & 12 other WR & 2 NR localities. Humber: the good Ruff salting at Cherry Cobb held 14 on 12 Aug, 26 on 17th & 12 on 30th, 10 on 15 & 29 Sept (GRB,HOB); Spurn 11 on 31 Aug, 5 on 1 Sept & one on 14 Oct. The last—one at Fairburn on 21 Oct (CWin).

188. Red-necked Phalarope. One at Flamborough on 19 May, probably also the same bird on 18th (GRB).

193. Arctic Skua. Spring: 3 at Spurn on 26 Mar & 22 Apr; at Flamborough, one on 25 Apr, 4 on 26 May & 2 on 27th; one at Hornsea on 26 May (GRB). Autumn: present on the coast between 24 June & late Oct, very large numbers from early Aug to mid-Oct with an unusually high proportion of pale-phase adults. In Aug, 'huge numbers harrying terns & Kittiwakes' in the Tees Estuary with 60 in view at one time on 12th, 80 on 25th & 150 on 26th & 28th (JABa,PJS—but see also NDOR). Smaller numbers at Flamborough & Atwick on 26 Aug, but 100 plus passed S at Spurn on 27 Aug. Again at Spurn, c.80 Arctic & c.180 skua spp. moved S during a large sea-bird movement on 11 Sept, whilst c.50 were still at Teesmouth on 30 Sept (JABa). A large passage at Spurn on 26 Oct when 135 skua spp. moved S in 1½ hours & later 287 spp. with 30 definite Arctics. Within the Humber, 2 chased wader flocks at Cherry Cobb on 19 Aug (ADB) & one W of Hull on 9 Sept (JC). 1-3 were seen off Hornsea, Withernsea & Spurn during the duck passage of 18 Nov (BSP,GRB, SBO).

194. Great Skua. 2 at Flamborough on 20 May (GRB). One at Fraisthorpe on 27 June (JF) & at Spurn on 11 June & 6 July. 1-2 at several coastal points on many days in Aug, & 1-3 more frequently in Sept with max. at Spurn of 16 on 18 Sept & 10 on 19th. Singles at Filey, Flamborough & in the Humber off Hull on 5 days in Oct, on 5 days at Spurn in Nov, the last on the 18th & 2 off Hornsea on the 18th (GRB).

195. Pomarine Skua. One at Flamborough & at Hornsea on 26 May (GRB). One off Filey Brigg on 28 July (RHA); singles at Spurn in Aug-Sept, 2 on 12 Sept; at Flamborough, on 2 & 9 Sept, 2 on 19th & 30th, off Atwick on 17-18 Sept (GRB); 2 at S.Gare on 13 Oct (DGB). At Spurn on 4 days in Oct-Nov & 7 identified during the sea-passage on 26 Oct (see also Arctic Skua). On this date, Pomarines predominated in a large skua movement S on the Durham side of Teesbay, suggesting that some of the unidentified Spurn skuas may have been this species. One at Spurn & 2 at Hornsea on 18 Nov (GRB,SBO).

196. Long-tailed Skua. Single adults at : Spurn on 1 June, 12 Aug & 30 Aug; & Atwick on 30 Aug (LS).

198. Great Black-backed Gull. Many observers again stress the increasing numbers wintering inland, at roosts & rubbish tips. The roost at Gouthwaite Res reached c.350 by 25 Feb but was smaller during autumn, max. 90 on 18 Nov (AFGW). At Spurn, 4-500 max. on several days in Sept, a minor peak of c.150-200 on 10 & 11 Nov. During a difficult count of a vast gull flight to & over Southfields Res, c.50 came in to roost & c.150 passed towards the Humber on 16 Dec (RJR,WGD). C.50 roosted at Ardsley Res on 23 Dec (RHard).

199. Lesser Black-backed Gull. Largest numbers on passage & in winter again in the E.Pennine areas of VCs 63, 64 & 65 (in contrast with quite insignificant numbers in VCs 61 & 62) with variations from previous years, & some new localities reported: c.600 roosting at Blackmoorfoot Res on 9 Aug (OSW), c.420 on Doncaster

Airport (DK,PM) & 1,000 plus roosting at Almholme (RJR) on 16 Aug, & c.650 at Ardsley Res on 23 Dec (90% Scandinavian-RHard). At established roosts, max. were 250 at Fairburn on 28 Feb (CWin), c.600 at Eccup Res on 19 Sept (MD); at Gouthwaite Res, 390 on 5 Oct, 524 on 23rd, 254 on 11 Nov & 450 on 1 Dec falling to 55 at the year end (AFGW, WCWal); c.400 at Leighton Res on 4 Oct & c.350 on 4 Nov (RCh). A pair bred on the coast.

200. Herring Gull. An estimated 9,000 passed over Southfields Res in the direction of the Humber on 16 Dec (RJR, WGD); the Humber gull roost on Whitton Sand is now known to hold large numbers of Black-headed, Common & Great Black-backed Gulls, but Herring have always been considered as comparatively scarce.

202. Glaucous Gull. An adult at Scaling Dam Res on 4 & 11 Mar (DGB,PJS). Coast: a 1st W at Spurn on 20 Jan, an adult on 17 Feb & an imm on 5 & 31 Mar; at Bridlington—a 1st W on 14 Jan & 18 Feb (GRB,HOB), an imm on 19 Feb (JABa), a 2nd W on 22 & 24 Feb & an adult on 24 Feb (GRB); an imm on 7 Apr at Saltburn (DGB). A 1st W at Flamborough on 11 Nov (HOB) & one at Spurn on 18 Nov; a 2nd W at Filey Brigg on 8 Dec (RHA) & one at Scarborough on 23 Dec (TMC).

203. Iceland Gull. An imm (probably 2nd W) near Hatfield Moor on 6 Jan (RJR,AEP,JB). A 2nd W at Bridlington on 18 Mar (JRM,RS,CWo); a nearly full adult at St. Andrew's Dock, Hull, on 31 Dec (WBS).

205. Mediterranean Black-headed Gull. An adult at Spurn on 21 Oct (JMBu,MD,PHGW *et al.*).

207. Little Gull. Inland: one at Ilkley SF on 31 Mar (RCP); 2 1st S at Fairburn on 6 May & another from 16-22 May (CWin *et al.*); one found at Eccup Res on 9 Dec (MD *et al.*). Coast: 1-2, mainly imms, reported from Scarborough, Bridlington & Spurn on 5, 25 & 27 Feb & 3 Mar, & an adult at Saltburn on 2 Apr (ABal, TMC,WKR,SBO); 2 at Spurn on 29 May. In Aug, one at Redcar on 14th & 2 on 30th (DRS); one at Spurn on 22 & 27 Aug. Sept: 1-3 on 12 days at Spurn, Hornsea Mere, Fraisthorpe & Redcar (GRB,AHR *et al.*). Oct: 2 at Spurn on 3rd, one at S. Gare on 13th (DGB) & at Hornsea Mere on 16th (RHA). One at Spurn on 11 Nov & an adult at Hull on 27 Dec (WBS).

208. Black-headed Gull. Large numbers in Sheffield during the first week in Jan, dropping after the 6th as the snow went (RGH). The Fairburn roost held c.9,000 on 23 Mar (CWin). In the last 4 months, 3,000 at Eccup Res on 5 Sept & 8 Oct (MD *et al.*); c.6,250 at Southfields Res on 16 Dec (RJR), c.6,000 at a Sheffield SF on 18 Dec (RGH) & c.3,000 at Ardsley Res on 23 Dec (RHard).

210. Ross's Gull. An adult in winter plumage at Bridlington on 17-19 & 22 Feb, the second county record (B.Richards *et al.*). For full details see BB, 55:480.

211. Kittiwake. After the great storm of 17 Feb, small numbers of adults & imms on the coast, c.20 tired-looking birds resting on Bridlington Harbour on 24-25 Feb; c.50 corpses found during searches for dead Fulmars. Inland: dead birds found at Sheffield on 20 Jan & 17 Mar, Gouthwaite Res on 17 Mar, Broomhill on 18 Mar & Adwick-le-Street on 15 Apr; singles seen at Blackmoorfoot Res on 3 Feb, Winterset Res on 3 & 18 Mar & at Eccup Res on 26 June. A new breeding colony of 6-7 nests at Huntcliff, Saltburn, possibly occupied in 1961; a summer roost on a cliff face at the extreme tip of Flamborough Head, possibly the start of another new site. Very large numbers on the coast Aug-Sept & many reports of flocks of up to several hundreds resting on the shore, especially the sandy Holderness beaches; at Spurn, c.750 gathered at the Point on 25 Sept. C.6,000 present at Teesmouth from mid-Aug to early Sept, max. probably c.10,000 about 14 Aug (DRS). One seen near Barnsley on 30 Dec (GRA).

212. Black Tern. A poor spring passage, 1-5 at Eccup Res, Fairburn, Gouthwaite Res, Hornsea Mere & Spurn between 14 Apr (Spurn) & 7 June (Fairburn) with singles at Gilberdyke on 3 May & Patrington Haven on 5 May. A rather stronger autumn passage from 12 July to 21 Oct, with no apparent connection between coastal & inland records; at Fairburn, max. 12 on 15 Aug were the last; 15-16 at Blackmoorfoot Res on 15 & 20 Aug; 6 at Winterset Res on 3 Sept; at Hornsea Mere up to 21 Oct, max. 7 on 7-8 Sept. 1-2 at 2 other WR waters & 4 coastal points.

217/218. Common/Arctic Tern. A small spring passage from 13 Apr, parties of 1-8 at many WR & coastal localities; max. 25 at Spurn on 20 Apr, 19 at Fairburn on 22 May & 19 at Eccup Res on 29 May. Breeding attempted again (a pair of Common unsuccessful) in S. Yorks. A heavier autumn coastal passage: max. c.1,000 at Spurn on 9 Aug, when only Arctic were identified, & c.630 S on 23 Sept. 1-3 inland

at 12 WR places up to late Sept; 2 over York on 6 Oct & singles at Fairburn on 7 Oct, Knaresborough SF on 27 Oct, at Spurn on 31 Oct & Filey Brigg on 3 Nov.

219. Roseate Tern. One flew N over Southfield Res on 28 Apr (RJR, JAP).

222. Little Tern. No proof of breeding success at either Spurn (where a high tide washed away nests with eggs) or Redcar. At Spurn, 2 on 21 Apr, max. 22 in spring. One off Hornsea on 26 May (GRB). Inland: 2 at Fairburn on 13 Aug, the first for the area (CWin). A very small autumn coastal passage, the last 6 at Flamborough on 17 Sept (GRB) & one at Spurn on 4 Sept & a very late bird on 19 Oct.

223. Sandwich Tern. First reported from Filey on 7 Apr (RHA), Spurn on 8th & Redcar on 9 Apr (DRS); spring peak of 45 at Spurn on 26 May. Good numbers in Aug-Sept on the coast. A party of 34 over Acklam, Middlesborough on 10 Sept (JVH). C.20 at S.Gare on 7 Oct (MRS) & one at Flamborough on 21 Oct (GRB).

224, 227, 230. Razorbill, Guillemot, Puffin. At Spurn, N passage heaviest on 26 May with 112 Razorbills (& c.200 probables), 48 Guillemots & 12 Puffins; c.150 auk spp. passed S on 10 June; 110 & 225 on 19-20 Sept & c.180 on 7 Oct, both days of sea movement (SBO).

226. Little Auk. One found near Armthorpe (*cf* 1961 OR) on 2 Nov was released at Blaxton 2 days later (RDM *et al.*). 2 at Spurn, one flying S with c.20 Starlings, on 3 Nov & one on 5th; 7 passing S at Atwick on 17 Nov (GRB) & one at Withernsea on 18th (BSP). One at Hornsea on 16 Dec (GRB).

229. Black Guillemot. One in Bridlington Bay on 18 Sept (GRB).

232. Stock Dove. 34 flushed from the Point poplars at Spurn on 2 Jan, with smaller numbers on 36 days to the year end. The Hornsea Mere flock reached c.700 on 9 & 16 Dec (GRB).

235. Turtle Dove. One at Cherry Cobb on 21 Apr (GRB) & 2 near Doncaster on 23rd (DK). Spring passage at Spurn mainly between 10 & 24 May (20 on 20th) & from 17 to 22 June (17 on 19th); one at Flamborough on 17 June (GRB) & a party of 26 in a stackyard at Armthorpe on 26 June (TG). A pair bred near Finghall (Leyburn) on the border of the bird's range (GEA). Autumn: 1-2 at Spurn on 6 days from 30 June to 1 Sept; one at Flamborough on 14 & 23 Sept (DAS); singles in the Dearne Valley on 5 days in Sept, the last on 25th (RJR, JBH, AEH).

— **Collared Dove (*Streptopelia decaocto*)** VC61: breeding proved or suspected in 10 localities in E half, including 2 new sites, & a considerable spread in Hull. VC62: present in Middlesborough & Whitby, heard once in Malton, 2 at Kirkleatham in June & one found dead near Thirsk in May. VC63: a considerable spread in Sheffield, bred in the Wheatley district of Doncaster & possibly at Sprotborough. VC64: present in several Leeds localities. Normally resident in breeding areas, but passage suggested by records of 1-3 at Spurn between 24 Apr & 1 Oct.

237. Cuckoo. 14 arrival dates between 18 & 26 Apr. Reports of decreases from several areas, including Spurn where never more than 4 on any day in spring, or than 6 in Aug.

241. Barn Owl. Reported from 27 localities, with proof of breeding in 3.

247. Tawny Owl. One flying over fields near Kilnsea on 10 Aug & one at the Point (Spurn) on 16 Sept (SBO).

248. Long-eared Owl. Bred near Harrogate, the first recent record for the area (JRM) & 2 pairs, probably 3, near Sheffield (RGH, ACri, DBC). One at Stocks Res on 6 May (KH) & one found dead at Almholme on 10 May (RJR). Autumn: one at Spurn on 12-14 Oct, 6 (5 in one bush) on 10 Nov, 5 on 11th, 2 on 12th & singles on 17, 18 & 22; one in Locke Park, Redcar, on 10 Nov (WN). 2 at Flamborough on 23 Dec (DAS) & one near Winterset Res on 20 Dec (DJS).

249. Short-eared Owl. Reported as absent, or present in greatly reduced numbers in the 1961 breeding areas (*cf* Kestrel); breeding only recorded in one Pennine area of VC63 & probably in one in 65. Largest numbers in the early months were 7 together at Patrington Haven on 7 Jan (ACre), 4 on 24 Mar (HOB); up to 6 on Rombalds Moor during the year (JCL). 1-2 mainly from coast & Humber up to 24 Apr, on 5-6 May & singles at S.Gare on 20 May & Spurn on 25 June. From 15 July, 1-2 again in these areas & in 6 inland localities, much less frequently than in 1960 & 61.

252. Nightjar. Singing ♂♂ or pairs present in VC62: 2 near Guisborough (DSS) where 'scarce this year' (DGB); 3 near Ampleforth (PRE); 3 at Clay Bank (PHa). VC63: at Blaxton (per AEP, JB); near Doncaster (per RDM, RAM); near Winterset Res (JDP, MNR). VC64: one at Harewood (MD, SJW); 2 near Barden (ESS); 7 N of Harrogate (MRS, HMJ) & on Snowden Moor (SJW *et al.*).

255. Swift. Reported in 16 localities in Apr from 20th; main arrival noted at Ilkley on 29-30 Apr (OMP), 420 over Hornsea Mere on 30th (GRB). Many reports of large concentrations over water in May-June, from 'hundreds' at Almholme, Fairburn, Sheffield & Worsbrough Res on several dates between 10 & 30 May & Sealing Dam Res on 13 May, to massive gatherings at Hornsea Mere estimated at 15,000 on 19 May. At Hornsea numbers remained high through June, max. c.25,000 on 16th & c.12,500 on 19th (GRB). At Spurn, small S passage in early May, more on 6-9 June, c.4,000 on 14th, c.8,000 on 19th, falling off from 20 June; heavy S passage again on 19 (c.2,000) & 21 (c.5,000) July, & the last large moves on 30-31 July & 4 Aug (SBO). Aug gatherings smaller than in May-June, although high at Esholt SF on 7th (c.1,500) & c.1,100 on 11th; max. at Hornsea Mere c.950 on 19th Aug. Passage noted in 4 WR localities on 28-29 Aug. 5 Singles in Oct, the last at Spurn on 11th & 19th.

262. Green Woodpecker. Singles at Spurn on 21 Apr, 14 & 17 Aug & possibly a different bird on 19 Aug.

263. Great Spotted Woodpecker. Spurn: one on 13 Apr; up to 4 from 19-30 Sept, then 1-2 on 14 days to 25 Nov; 5 were trapped during this autumn influx, when they were often seen on poles & elsewhere in various parts of the peninsula. Danish sources report very large 'invasion' type movements of this & other woodpecker spp. in the Baltic countries this autumn.

264. Lesser Spotted Woodpecker. Reports of singles or pairs from Ampleforth, Thornton Dale, near Helmsley, near Doncaster (bred), Armthorpe, Bretton Park & Adwick-le-Street, Eccup, Ripley & Masham (bred).

271. Woodlark. One inland record on 9 June (JJN). Singles at Spurn on 24 Apr & 9 Oct.

272. Skylark. Small NE moves in the Sheffield-Doncaster area in second half of Jan; small S passage noted at Spurn on 28 Jan, 18 Feb, 25, 30 & 31 Mar & on some days in Apr; similar numbers moved W or NW at Redcar on 19 Feb, 17, 18, 25, 28 & 31 Mar & 8 Apr. Autumn passage from 22 Sept on the coast, at Spurn heaviest on 27 & 29 Sept, on 2 & 24 Oct & 3-4 Nov; NW passage at Redcar on 6 & 15 Oct, & several reports of SW-NW moves in the central plain on 13-14 Oct; many at Flamborough on 14 Oct, & 200 plus on the cliff tops at Filey Brigg on 3 Nov. C.100 flew NW over Rossington & N at Ossett on 23 Dec; c.1,000 on stubble at Staveley on 27 Dec.

273. Shorelark. One at Atwick on 13 Jan (GRB). The Flamborough birds of 1961 associated with Skylarks & were often hard to find & count; 21 on 7 Jan, 18 on 14th & 8 on 28th; 7 on 11 Feb & one on 18 & 25 Mar (GRB, HOB). At Spurn: up to 3 on 4 days in Jan-Feb, up to 7 on 3 days in Mar & one from 2-6 May. Autumn; one at Flamborough on 29 Oct & 3 on 18 Nov (GRB). At Spurn—2 on 3 Nov & one on 4th; 1-2 on 3 days in Dec.

274. Swallow. First reported from 7 localities between 6 & 11 Apr, more widely from 19-23 Apr (19th mainly coastal, 22nd inland). Large numbers at Hornsea Mere through May; a poor & late breeding season in ER, with small broods (GRB). At Spurn, spring passage heaviest from 6-10 May, with c.200 passing on 9 June; autumn passage from 30 July, heavy on 16-18 Aug (c.4,550 on 18th), from 4-8 Sept (c.8,000 on 5th) & on 11, 15 & 16 Sept; max c.700-850 on 22, 23 & 27 Sept & 2 Oct. The massive Fairburn roost was late in starting; c.200,000 on 24-25 Sept, c.30,000 on 26th & c.600,000 on 1 Oct; c.80,000 on 2nd, c.400 on 4th & one on 11 Oct. An exodus from Hornsea Mere in the first two weeks of Oct. 1-9 at 14 localities to late Oct, & 1-3 on 4, 11 & 15 Nov.

276. House Martin. 5 arrival dates in 19-21 Apr & seen in 6 localities on 22nd. 1-2 on 4 dates in Nov, the last at Spurn on 14th.

277. Sand Martin. One at Fairburn on 29th, the only Mar record; one at Hornsea Mere on 1 Apr; 16 other first dates between 6 & 25 Apr. Large numbers over Hornsea Mere in May-July, commencing with 104 on 19 Apr & c.2,000 on many days in the period. C.1,000 at Fairburn on 4 May. Autumn numbers at Fairburn: c.6,000 on 8 July, c.40,000 on 13 Aug & fewer to 3 on 29 Sept; c.70,000 passed through on 1 Oct, c.2,000 present on 2nd & 70 on 4 Oct. 4 other Oct records, the last at Flamborough on 21st.

279. Raven. Bred at 5 Pennine sites (*cf* Peregrine). Max, 5 in Upper Nidderdale in the last four months (A&DS *et al.*) & 6 near Malham Tarn on 8 Dec (KH).

281. Hooded Crow. 5 at Redcar on 9 Jan & 3 on 3 Feb; one near Guisborough on 28 Jan-3 Feb; 1-2 at Sewerby on several dates from 7 Jan-27 Apr; singles at

Barden Moor (near Catterick Camp) on 14 Mar & at Fairburn on 10 Apr; at Spurn on 4 Apr dates & 7 on 6 May. Singles at Spurn, Sewerby & Winestead on a few days in Oct-Dec; 3 & a possible hybrid at Scarborough on 22 Dec.

282. Rook. Passage at Spurn was more noticeable in spring than in autumn, with *c.*50 on 30 Mar & 12 Apr; *c.*180 *Corvidae* on 26 Apr were considered to be mostly Rooks.

290. Coal Tit. 2 occurred at Spurn on 20 Apr & one on 23rd.

293. Willow Tit. Possibly increasing in VC62, where reported from: Redcar (DRS), Lockwood Beck (DGB, DRS), regularly near Guisborough (DSS), in Sleight-holmedale (MDC), Gilling (PRE) & Castle Howard (JJN).

294. Long-tailed Tit. 7 came in from the sea to Flamborough on 7 Jan (GRB). 4 at Spurn on 22 Sept & one on 13 Oct.

295. Bearded Tit. 1-5 on several dates in one locality.

296. Nuthatch. Reports suggest a further increase & spread (*cf* recent *ORs*), particularly in VC62 where 11 singles or pairs present in 8 dales & at Hovingham. Several heard near Thwaite (GJWH)—'higher up Swaledale than previously recorded' (RCh)

298. Treecreeper. One at Spurn on 6 July.

299. Wren. Bred in the Point area at Spurn.

300. Dipper. Sedbergh S.S. report delayed breeding in their area, & a second brood reared in only one of 35 nests located. One with the characters of the Black-bellied race seen in flight & perching on a groyne at Spurn on 21 Oct, last seen flying high to W; another at Worsbrough Res from 11 Nov-9 Dec was trapped during its stay (TMC, AA *et al.*). These appear to be the first county records of this race since 1911.

301. Mistle Thrush. Up to 4 at Spurn on a number of days to mid-May & noted again between 13 Sept & 19 Nov. The largest parties reported were 62 near Doncaster on 15 Aug & 52 at Eccup on 18 Sept.

302. Fieldfare. Very few reported inland in early Jan, when large numbers were at Spurn—*c.*1,500 on 1st & *c.*800 on 2nd. Small NE moves in several areas between 14 & 24 Apr; several May records up to 19th. One at Spurn on 13 Sept; a very large influx commencing 11 Oct (Redcar, Sedbergh & Spurn) & continuing to mid-Dec when weather moves also occurred. Considerable numbers appeared at Spurn after 11 Oct, with peaks on 19 & 27 Oct, 7 & 25 Nov & 1-2 Dec—'generally more than average' (SBO). 13 inland arrival dates from 11-15 Oct; very large numbers near Doncaster on 24-25 Oct & on 10-11 Nov, & in the Broomfleet-Howden area on 3, 10 & 25 Nov; smaller numbers at Flamborough on 2 & 16 Dec & at Filey Brigg on 15 Dec. Reported seeking food in built-up areas in the last week of the year.

303. Song Thrush. A comparatively light autumn passage from 4 Oct (Filey Brigg & Spurn) continuing to early Dec; max. at Spurn on 4 & 12 Oct. Only report of large numbers was of a heavy night passage over Hessle on 5/6 Nov (DAG).

304. Redwing. Heavy passage at Spurn during 1-4 Jan, & parties moving SW over Sheffield & Winterset Res on 1 Jan. Numerous in Hull, including city centre, through Jan. C. 30 dead at Flamborough on 14 Jan. Several in May up to 19th. After the first two at Spurn on 19 Sept, a large passage (*cf* Fieldfare) from 4 Oct to 16 Dec reported from many inland & coastal points. At Spurn the largest numbers passed in the period 4-22 Oct, max. on 11th when thousands arrived at Redcar; 5 inland 'listeners' heard many calls at night on 11th. Smaller numbers at Spurn from 2-8 Nov & many heard inland in the same period. Cold weather moves to coast & into towns on 29-30 Dec.

307. Ring Ouzel. One on Ilkley Moor on 29 Mar (RCP) & complete arrival in Upper Nidderdale by 3 Apr; as late as 15 Apr in 3 Pennine areas & 17th at Ilton (PY) 1-3 at Spurn, Skipsea & Flamborough between 13 Apr & 12 May. Autumn, only at Spurn on the coast: 4 on 13 Sept, fewer on 10 days in Sept-Oct & one on 11 Nov.

308. Blackbird. Up to 50 (on 2nd) at Spurn in early Jan; spring passage there from late Mar (*c.*60 on 27th) to 20 Apr; increases noted around Doncaster on 17-18 Mar & 19 Apr. A moderate autumn passage first reported from Filey Brigg on 15 Sept, Flamborough on 4 Oct & Spurn on 7 Oct with largest numbers on 6-9 Nov, max. *c.*3,000 at Spurn on 7 Nov. Light passage continued up to early Dec, probably merging with weather moves during the 3 Dec cold spells.

311. Wheatear. Singles near Harrogate on 27 Mar & at Spurn on 30th. The next 6 arrival dates between 5 & 10 Apr; subsequently, coastal numbers were high,

max. at Spurn c.50-60 on 7-8 May & 21 at Flamborough on 27 May. None seen on moorland W. of Huddersfield up to 3 May (JED). 3 on the Humber bank near Paull on 17 June. Fairly light autumn passage, max. c.70 & 50 at Flamborough on 27 & 28 Aug, c.20 at Spurn on 28 Aug & 8 Sept, & c.35 at Flamborough on 15-16 Sept. 15 at Fairburn on 18 & 25 Aug. 1-2 on the coast up to mid-Oct, & one at Hessle on 24 Nov (DAG).

312. Desert Wheatear. ♂ on the Humber bank between Kilnsea & Easington from 16-19 Apr (GRN *et al.*), the third county record. For details see *Nat*, 883:146 & SBO log.

317. Stonechat. 1-4 at Spurn up to 29 Apr; 1-2 on single days in this period at Wroot, Fairburn, Ilton, Grimwith Res & Filey. One near Ampleforth on 6 May & at Fairburn on 29 July. 1-3 at 7 coastal points on 10 days between 27 Aug & 22 Dec, most records in Oct & Dec; singles inland near Harrogate on 10 Oct, Eccup on 19 Oct, near Wakefield on 4 Nov & Blackmoorfoot Res on 2 Dec.

318. Whinchat. Singles at Spurn on 23 Apr, near Chop Gate (Cleveland) on 25th & Hornsea Mere on 29th, the only records for the month. A small autumn passage from 4 Aug, the last at Spurn on 20 Oct.

320. Redstart. One near Masham on 11 Apr; in 5 localities on 20th & in 10 between 21 & 29 Apr. One at Spurn on 15 July; light autumn passage on the coast from 25 Aug.

321. Black Redstart. Apart from one at Redcar on 18 Apr (WN), reported only from Flamborough & Spurn in spring & autumn; singles at Flamborough on 10 Mar, 20 Apr, 6 & 20 May (GRB). Singles at Spurn on 28-29 Mar & 1 Apr; up to 7 daily from 14-25 Apr, 2 on 10 May & one on 14 May; one on 8 July! One at Flamborough on 30 Sept & 3 on 21 Oct (GRB). At Spurn, 3 on 8 Oct & one to 11th; 3 on 21 Oct & one to 24th.

322. Nightingale. The first on 23 Apr near Doncaster, where 4 pairs bred (CJB, RFEB, DK). One heard at Lindrick on 27 May (RGH).

324. Bluethroat. 1st W trapped at Spurn on 24 Sept, & one seen on 7 Oct (GRE).

325. Robin. Spring passage at Spurn from 16-24 Apr, c.30 on 17-18th; light autumn passage mainly from 8-15 Oct, c.50-40 on 12-13th. 30 at Eccup on 7 Oct.

327. Grasshopper Warbler. Singles at Spurn & Hornsea Mere in the period 18-28 Apr & on 6 May. All other records at inland localities: 4 'firsts' from 22-27 Apr & 5 from 1-7 May. C.10 pairs in one Doncaster area (WGD). Heard on single days at 11 other localities; 3 Aug records, the last on 19th.

333. Reed Warbler. At Hornsea Mere on 23rd & Fairburn on 27 Apr. At Spurn one dead on 22 May & one trapped on 29th; 2 singing in the Lagoons area on 3 days in June & July. A single bird at Scarborough Mere, & no proof of breeding (RHA); at least 4 pairs at Castle Howard (PRE), probably now the northernmost colony in the county. The recent enquiry produced very few records N of the latitude of York, & suggests that the main weight of population—comparatively large for a fringe species—is in the extensive *tidal* reed-beds of the upper Humber & lower Ouse.

337. Sedge Warbler. One at Hornsea Mere on 21 Apr, increasing to 21 on 23rd. 8 at Fairburn on 24 Apr.

343. Blackcap. One at Spurn on 6 Apr; the next at 4 localities on 14, 20, 23 & 25 Apr. Several Oct records up to 21st, & singles at Adwick-le-Street on 4 Nov, Spurn on 5th & Fairburn on 11th.

344. Barred Warbler. At Spurn: 1st W trapped on 20 Sept; a probable seen on 22nd; 1st W seen on 23rd; one trapped on 26 Sept.

346. Garden Warbler. Reported from 4 places between 28 Apr-2 May; singles at Flamborough & Spurn in the period 5-20 May. Very small autumn coastal passage, 1-5 on 31 days between 1 Aug & 29 Sept.

347. Whitethroat. First noted at 4 localities on 23 Apr, at 7 others from 24-29 Apr & at Ilton on 9 May. Small numbers in autumn, the last on 29 Sept.

348. Lesser Whitethroat. 2 near Staithes on 3 Apr (WKR) & one near Harrogate on 3-5 Apr (PJC, AFGW); one at 2 localities on 22-23 Apr & at 3 on 29th. Singing ♂ in May-June in 13 places. 1-2 on the coast from 29 Aug to 13 Oct (Spurn).

354. Willow Warbler. First records from 5 areas from 13-15 Apr & from 17 others from 19-27th; numerous at Wentbridge on 15 Apr, & during the last week in Apr generally. Unusual numbers in Aug, after a large movement at Armthorpe on 29 July: an increase near Doncaster on 15 Aug; c.20-50 at Flamborough from 26-28

Aug; 10 & 36 on 27 & 28th at Spurn. Several Sept records, inland and on the coast, to 30th & one at Spurn on 3 Oct.

356. Chiffchaff. One at Hornsea Mere on 25 Mar & at Flamborough on 1 Apr; the next 5 reported between 8-15 Apr & then 7 from 21-29th. Decreases noted at Adwick-le-Street (RJR) & none at Esholt where a decline reported in previous years (DAS,JRC). Singles only on autumn passage; one singing at Bradford (DAS,JRC) & one trapped at Sedbergh on 28 Sept; the last at Spurn on 21 Oct; probables at York on 2 Dec (CWFH) & Worsbrough Res on 9 Dec (DJS,JIM *et al.*).

357. Wood Warbler. First records on 26 & 27 Apr & on 1-3 May. One singing at Staithes on 27 May (HPKR).

360. Yellow-browed Warbler. One trapped at Spurn on 26 Sept.

364. Goldcrest. Occurred at Spurn on 18 days from 25 Mar to 12 May, max. 12 on 18 Apr. A moderate autumn coastal passage in the period 3 Sept-25 Nov, small numbers from 23-27 Sept; max. between 8 & 24 Oct with c.200 at Spurn on 12th-13th & Flamborough on 13 Oct, & a few at Redcar-S.Gare on 11-13 Oct. A smaller peak (c.80) at Spurn on 22-33 Oct.

365. Firecrest. Spurn: one from 26-30 Sept, 2 on 22 Oct & one to 31st (trapped); one on 5 days in Nov to 11th. One at Eccup on 15 Nov (GRN).

366. Spotted Flycatcher. One at Hornsea Mere on 23 Apr (GRB) & one in Swaledale on 26 Apr (ECS); 10 arrivals from 3-13 May; 1-3 at Spurn & Flamborough between 6 May & 15 June. One at Spurn on 15 July; c.7 at Armthorpe (TG) & c.16 near Worsbrough Res (DJS) on 19 Aug. Occurred at Spurn on many days from 23 Aug to 9 Oct, max 7 on 28 Aug & on 14 & 26 Sept; 1-3 at Flamborough on 23-30 Sept; one at Eccup on 26th & at Gouthwaite on 29 Sept.

368. Pied Flycatcher. One at S.Gare on 20 Apr & at 5 inland localities from 22-29 Apr; 2 at Spurn on 7-8 May & one on 10th; one at Flamborough on 2 June. Reported from Redcar, Filey Brigg, Flamborough & Spurn between 15 Aug (8 at Spurn) & 21 Oct, heaviest through Sept; max. 14 at Filey Brigg on 15 Sept, c.35 at Flamborough on 15th & c.20 & 23 on 26-27 Sept; c.60 at Spurn on 3 Sept, c.35 on 26th. Singles inland at Adwick-le-Street on 26 Aug & at Eccup in late Aug-early Sept; one near Barnsley on 21 Sept (GRA).

371. Hedge Sparrow. Increase noted at Spurn in late Sept, 92 present on 23rd & c.85 on 26th, remaining plentiful in Oct, max. c.80 on 8th. Apparent movement at Redcar on 6, 8 & 10 Oct, & 7 flying over S. Gare breakwater on 21 Oct.

373. Meadow Pipit. Spring passage on the coast fairly light & late: heaviest at Spurn from 7-13 Apr (c.110 on 7th & c.300 on 11th) including one party of 88 coming in from SE & continuing up the Humber, as did most of the others; larger moves at Redcar on 31 Mar, 10 & 12 Apr (DRS), & an influx (182 counted) at Filey Brigg on 7 Apr (RHA). An increase noted at Flamborough on 20 Aug, on 1st Sept at Redcar, & in early Sept at Spurn where max. c.4,600 on 8th, c.3,250 on 11th, c.2,000-2,500 on 15, 22 & 27 Sept & 2 Oct; heaviest at Flamborough on 21-23 Sept & c.400 in 2 or 3 fields at Potteric Carr on 23rd (RDM); a considerable influx at Redcar-S.Gare (DRS) & c.150 at Hampsthwaite (PJC) on 10 Oct. 250 moved N on 29 Dec & 100 S on 30th at Harrogate SF (JGWR).

376. Tree Pipit. One at Spurn on 8 Apr; first recorded at 8 localities from 19-22 Apr, at 2 on 24th & one on 27th; on 10 May near Ilton. Small autumn numbers at Spurn between 25 Aug & 21 Sept.

379. Rock Pipit. One near Eccup Res on 8 Apr (GRN). A paper on inland occurrences (see *Nat.* 885:37-39) gives records of one at Adwick-le-Street SF on 7 Oct (RJR), 1-3 near Eccup Res on 6 dates from 7-24 Oct (GRN), singles at Thrybergh Res on 20 Oct (RJR,TG) & at Armthorpe SF on 24 Oct (TG); in addition, birds were reported at Fairburn in Oct (CWin) & one was trapped at Fly Flatts Res on 9 Oct (DAS,JCP). These records, with others in recent years (see also *Doncaster OR*, 1961) suggest a small, regular passage in some E.Pennine districts in Oct-Nov. Birds showing the characters of Water-Pipits in summer plumage at Patrington Haven (where probably regular in spring) on 24 Mar (HOB) & Hornsea Mere on 10 Apr (GRB).

380. Pied Wagtail. A roost in reeds at Potteric Carr held c.350-500 from 11 Mar to 8 Apr, c.120 & 80 on 25 & 27 Apr; a steady increase from c.300 on 7 Aug to c.500 on 21 Oct, 25 Nov & 8 Dec (RDM). Birds with characters of White Wagtail: 2 near Barnsley on 18 Mar (CB,AA,DJS), & one at Worsbrough Res on 1 Apr (JIM); singles at 14 localities between 11 Apr & 8 May, 7 of them on 19-22 Apr; 1-7 at Spurn from 16-25 Apr.

382. Yellow Wagtail. ♀ at Swinton (near Mexborough) from 27 Jan to 3 Feb, feeding on a refuse tip at a maggot farm, trapped 3 Feb (TG,RJR); apparently the first winter record for the county (see *Nat*, 881:44). 3 spring arrivals on 14-15 Apr, 6 more from 19-23 Apr & the first in Garsdale on 3 May. Late summer roosts: c.600 at Denaby Ings on 4-5 Aug & 27 as late as 25 Sept; c.300 at Fairburn on 21 Aug; c.70-100 at Potteric Carr between 7 Aug & 6 Sept. At Spurn, odd birds on 8 & 10 July & almost daily from 17 Aug to 28 Sept, max. 18 on 25 Aug & c.40 on 5 Sept. Inland singles on 7 & 8 Oct, & 2 on 19th. ♂♂ with characters of the Blue-headed race: one at Fairburn on 21 Apr (CWin); one feeding young in Howgill area (HWP); one at Hornsea Mere on 2 June (GRB) & on 1 July (AHR).

383. Waxwing. Singles in Jan at Spurn, Bridlington (dead), near Huddersfield & Shipley; one at Sheffield on 2 Feb & 4-5 on 18, 20 & 22 Feb; small parties at Helmsley on 8 Feb, one at Masham from 21-27 Feb; one at Bradford on 6 Mar. 2 at Nunthorpe on 17 Nov, one at Bingley on 19 Nov & c.25 at Ampleforth on 22 Nov.

384. Great Grey Shrike. Singles at: Ripley on 17 Feb (MRS,AFGW), near Leyburn on 31 Mar (GEA) & at Fairburn from 13-19 Apr (CWin). Up to 3 at Spurn on 7 days from 8-24 Oct (3 ringed). Singles at Easington on 13 Oct & Out Newton on 16 Oct (PJM), at Winterset Res from 26-31 Dec (GRA,DJS) & at Staveley on 28 Dec (IRD,AFGW).

389. Starling. A S move noted over Doncaster on 1 Jan (MH); c.5,000 passed S at Spurn in the weather-move of 1 Jan. Movements continued to May at Spurn, max. c.700 on 1 Apr, & post-breeding parties passing reached c.1,000 on 21 June. Small numbers arrived in Oct, the main influx in early Nov: many came in from the sea all day at Filey Brigg on 3 Nov (RHA) & max at Spurn on 2nd (c.6,000, of which 4,637 passed NW), with over 1,000 passing S daily up to 7 Nov. Very large roosts reported in Mar near Thorne (JDG), at Hornsea Mere to mid-Dec & Burton Pidsea (GRB,BSP) from mid-Dec (same population) & in the Rudston area in autumn. C.40,000 passed S over Doncaster again on 31 Dec (MH).

391. Hawfinch. Breeding-season reports from the usual areas. One at Gouthwaite on 3 Jan (IRD) & at Eccup on 6 Jan (MD), 3 at Fairburn on 7 Jan (first record—CWin) & one on 18 Feb; one at Flamborough (first record) on 15 Sept (DAS,RSO).

392. Greenfinch. Spurn: large numbers in early Jan, max. c.1,500 on 2nd; 101 passed S on 11 Apr; no considerable autumn moves until 19-21 Oct (c.140). & max. c.300 passing S on 22 Nov. At Redcar, W-NW coasting moves on 7 Oct & 25 Nov (DRS).

393. Goldfinch. C.20 at Spurn on 1 Jan & 10 on rocks at S.Gare on 9 Jan (DGB). Widely reported as numerous in many areas (*cf* recent ORs), max. 88 roosting near Doncaster on 21 Jan (CJB,DK); flocks of c.70 & c.100 at Potteric Carr on 23 Sept (RDM) & up to 100 at Southfield Res on 11, 18 & 25 Oct (EWE).

394. Siskin. After the abundance of autumn 1961, numbers remained very high in Jan, max 218 near Shipley on 4-5 Jan (JCL); c.100 near Burley from 1-6 Jan (JRG), c.100 near Ossett on 14th (AF,RW), c.90 near Hampsthwaite on 18 Jan (PJC) & up to 80 near Barnsley through the month (CB,AA,DJS); 20-50 in 7 other Pennine localities & in 3 in Cleveland; c.40 at Hornsea Mere on 4 Feb (GRB) & c.50 near Barnsley on 11 Feb, otherwise small numbers through Feb & Mar; a few reported from 6 localities up to 20 Apr, & at Spurn on 23-24 Apr & on 28 May. A moderate autumn influx at Spurn from 21 Sept to 10 Nov, max. c.30 on 2 Oct. C.20 at Hornsea Mere on 29-30 Dec (GRB); very few reported inland, & only in Oct & Dec.

395. Linnet. An influx at Spurn in early Jan (c.300 on 2nd) had ceased by 14th, but large numbers again recorded from 31 Mar to 8 May: max. between 20 & 22 Apr (c.1,600 on 20th) & c.1,200 on 7 May; most of the 1,808 ringed at Spurn were caught in the first half of the year. 142 passed S at Atwick on 20 Apr (GRB) & large numbers passed through the Skidby area (W of Hull) on 21-23 Apr (JTL); increase noted in the Doncaster area from early Apr (RJR). Fairly heavy autumn passage at Spurn from 10 Sept, largest numbers between 25 Sept (c.600) & 2 Oct (c.2,500) & usually over 100 to 9 Nov, with c.780 on 4 Nov, c.700 at Filey Brigg on 3 Nov (RHA). A flock of c.150 on W. Hull foreshore on 29 Dec (WBS).

396. Twite. C.50 at Patrington Haven on 7 Jan (ACre) & 2 at Spurn on 4 Mar, all on sea-purslane saltings. Bred in 2 (& probably in a third) Pennine areas; post-breeding parties of 3, 12 & 22 in the VC63 Pennines & 1-3 at 2 localities in VC64. One at Jackson's Bay, Scarborough, on 22 Dec (TMC).

397. Redpoll. Again reported in quite large numbers from several WR areas in the first four months, max. c.150 roosting near Doncaster on 4 Feb (DK,CJB).

A small spring passage at Spurn, & up to 50 on several autumn days during the large Linnet moves. Small numbers in WR in autumn, max. c.60 in the Doncaster area on 14 & 21 Oct (RJR) & on 2 Dec (TG). 2 birds with the characters of Mealy Redpolls at Fairburn on 14 Jan (CWin,WCWak).

398. Arctic Redpoll. A party of 6 near Patrington on 25 Feb (ACre) showed the characters of this 'species'.

401. Bullfinch. The high numbers of the last 3 years maintained in most areas; parties of 10-30 in Jan & again, more widely, in the last 3 months; reports of more than usual in autumn at Bretton Park (JED) & near Doncaster (RDM). Up to 4 at Spurn on several days from 4 Apr to May & singles on 5 & 18 Nov; 2 ♂♂ trapped on 5 Apr were considered to be of the British race.

402. Scarlet Grosbeak. An imm seen at Spurn on 26 Sept (JC,WCWak) & on 27th (WCWak), the third Spurn & county record.

404. Crossbill. First reported on 29 June (no details—see *Bird Migration*, 2:255); present in Bishop Wood, Selby, one at Spurn & 25 at Eccup on 7 July, c.12 at Rishworth from 8-11 July (VSC,IM,FM), at least 56 near Sheffield on 15 July (RGH), 20 near Bolton Abbey on 16th (JKF), 30 near Harrogate on 16th & 20 on 21st (AFGW); 40 over Ilkley on 23 July (OMP); the Eccup party up to 24 through the month; singles & small parties from 8 July at Howden, Hornsea & at 8 E. Pennine localities to the month-end; singles at Spurn on 14-15 July & 3 on 29th. Small parties in 5 WR areas in Aug-Dec. C.12 at Hutton-le-Hole on 1 Aug (BK) & 7 near Helmsley on 6 Aug (CDM). Singles at Spurn on 4-5 Sept, up to 3 on 7 days from 13-25 Sept & apparently a fresh influx there from 5 Oct (8), 3 on 6th, 2 on 11-12 Oct (& one at S.Gare on 11th (DRS,ABar), 6 on 13th & 7 on 28 Oct, finally 3 on 3 Nov. The only large parties after July were in the Cleveland: c.30 in Kildale on 23 Sept (ECG *et al.*) & 23 on Pickering Moor on 22 Oct (*Bird Migration*), excepting records of parties of 9, 16, & 24 at Langsett on 16, 23 & 24 Dec (CB,DJS).

405. Parrot Crossbill. One of 2 crossbills trapped at Spurn on 12 Oct was found dying on 13th & identified (EGo) as of this species. It is now preserved in Bolton Museum. This appears to be the second county record. It seems possible that some other of the Oct crossbills may also have been this species—see *Bird Migration*, 2:260-264.

407. Chaffinch. Figured in the early rush at Spurn between 1 & 4 Jan (c.250 on 2nd) & a few present on many days to 26 Mar; spring passage there heaviest (c.130) on 1 Apr, c.90 on 7th & c.230 on 20 Apr. Serious decline in breeding numbers reported from Carleton (Pontefract) & Womersley (per JDP), the Bradford area (JCL) & Harrogate (AFGW). Autumn passage, after a few in Aug & Sept, daily at Spurn from 6 Oct (c.30) to mid-Nov, max. c.100 on 8 Oct, c.150 on 9 Oct & c.100 on 7 Nov. Movement noted at Redcar-S.Gare on 6 & 11 Oct & on 15 Nov (DRS). C.30 on W.Hull foreshore on 29 Dec (WBS).

408. Brambling. Up to 50 at Spurn from 1-7 Jan. C.100 roosted near Nunthorpe during Jan (IFS); c.70 seen at Finningley on 11 Feb & c.250 just over the county border at Wroot on 5 Mar (AEP,JB). A flock on a W.Hull foreshore rubbish tip from 4 Mar (c.40) to 5 Apr (c.150) reached c.300 on 6 Mar & 3 Apr (WBS). A small autumn passage from 26 Sept at Spurn, max. c.80-250 from 11-13 Oct, & a minor influx from 8-10 Nov; c.30 at S.Gare & 4 at Redcar on 11 Oct (DRS); 15 at Flamborough on 13 Oct (AFGW). Autumn flocks very small inland. Signs of weather moves in Dec: c.10 at Hornsea Mere on 8, 9 & 16 Dec & 24 on 30th (GRB); 15 on W.Hull tip on 29 Dec (WBS).

409. Yellowhammer. C.20 at Spurn on 3 Jan & again on 6 Mar. Small numbers feeding in Sheffield factory yards from 1-5 Jan (RGH).

410. Corn Bunting. C.20 at Spurn on 1 Jan. Reported May-Aug at Stillington, Ampleforth, Easingwold & Gillamoor (PRE,MDC), all new VC62 localities (AJWa).

421. Reed Bunting. C.40 passed S at Spurn on 4 Jan. Main autumn passage at Spurn between 22 Sept & 20 Oct, max. c.200 on 20 Oct.

422. Lapland Bunting. 1-3 reported from Redcar, Filey Brigg, Flamborough, Bridlington, Atwick & Spurn on 9 days to 17 Mar (RHA,GRB,DRS,SBO). In autumn: 3 at Spurn on 19 Sept, singles at Redcar on 23rd & Flamborough on 25 Sept (DRS,AJWi); occurred at Spurn on many days to the year-end, max c.10-15 on 9 & 20 Oct, 4, 15 & 25 Nov & 15 Dec. Parties of 1-8 at 5 coastal points between Redcar & Hornsea, mainly on stubbles, to late-Dec, largest numbers from 14-20 Oct (RHA,GRB *et al.*). An inland record of one near Eccup Res on 9 Oct (GRN).

423. Snow Bunting. Singles at Eccup, Fairburn & near Ilkley in Jan; *c.*20 near Wetwang on 12 Jan (CJW), apparently the first *inland* Wold record for over 50 years (see Nelson); one at Winterset Res on 18 Mar. All other records for the first quarter were on the coast & Humber, small numbers generally, but up to *c.*100 at Spurn to mid-Jan & *c.*60-80 in Feb; *c.*300 at Patrington Haven on 25 Feb (ACre); the last at Spurn on 21 Apr. 5 autumn arrival dates from 13-22 Sept on the coast & at Scaling Dam, & no large parties (max. 42 at Spurn on 29 Sept) until Nov; max. at Spurn *c.*150 on 4, 17, 18, 24 & 25 Nov & 3 Dec, *c.*230 on 1 Dec; *c.*50-80 at several Holderness coastal points from 17 Nov, when 19 came in from the sea at Atwick (GRB), & *c.*120 at S. Gare on 24 Nov (DRS); *c.*250 at Filey Brigg on 15 Dec (RHA) & 106 at Atwick on 16 Dec (GRB). Small parties in several Pennine areas from 10 Nov (& 6 on Danby Moor on 11 Nov (DGB)) max. *c.*20 near Cupwith Res (RCr) & *c.*20 & 35 at Scar House Res (WWG); 1-2 at 11 localities in the E. Pennine foothills & central plain in Nov-Dec. 4 on stubble on the Wolds above Birdsall on 9 Dec (HOB).

424. House Sparrow. Fewer passing at Spurn than in 1961: *c.*300 on 2-5 Jan, & on 30 Oct, *c.*380 on 4 Nov & *c.*460 on 15 Dec.

425. Tree Sparrow. Large numbers in the Doncaster area in Jan: *c.*400 near Armthorpe & *c.*180 at Harlington Flash on 7th (RJR,JBH). Max at Spurn *c.*100 on 3 Jan & *c.*120 on 24 Oct.

The following were also reported during the year: Little Grebe, Red Grouse, Partridge, Pheasant, Moorhen, Snipe, Curlew, Redshank, Dunlin, Common Gull, Woodpigeon, Little Owl, Kingfisher, Carrion Crow, Jackdaw, Magpie, Jay, Great Tit, Blue Tit, Marsh Tit, Grey Wagtail.

ADDITIONS AND CORRECTIONS TO EARLIER REPORTS

1960

91. Buzzard. Delete—'one dead at Roos on 17 Sept.'

98. Honey Buzzard. One found dead at Roos on 17 Sept, is now set up in the Hull Museum.

1961

151. Whimbrel. One through autumn to the year end at Staithes (HPKR).

171. Little Stint. One at Cherry Cobb on 2 Dec (GRB).

213. White-winged Black Tern. A juv at Hornsea Mere on 19 Aug (GRB).

423. Snow Bunting. A flock of 2,000 plus at Patrington Haven on 15 Jan (ACre).

LIST OF CONTRIBUTORS

J. Ackroyd, Ackworth School N.H.S., G. H. Ainsworth, G. E. Alderson, M. Allison, W. Anderton, C. E. Andrassy, R. H. Appleby, J. Appleton, A. Archer, B. Armitage, J. Armitage, J. S. Armitage, D. Ashurst, Miss N. E. Atkinson, E. W. Anbrook, G. R. Aynsley, J. A. Bailey, A. Baldridge, K. Baldridge, P. G. R. Barbier, F. N. Barker, A. Barnard, Batley N.H.S., J. M. Bayldon, J. E. Beckerlegge, D. G. Bell, G. R. Bennett, C. Bielby, G. Bird, T. D. Bisiker, D. T. Blackmore, F. de Boer, J. A. Booker, C. G. Booth, B. Bort, C. I. Bort, A. Boulton, C. Bower, H. W. Bracken, S. R. Brennan, H. Briggs, R. L. Brook, Mrs. M. Brooke-Taylor, Miss S. D. Brooks, V. F. Brown, A. D. Buffey, H. O. Bunce, C. J. Burbanks, J. Burley, C. E. A. Burnham, E. B. Burstall, C. E. Burton, R. F. E. Butler, W. A. Butterfield, J. M. Butterworth, N. Carling, P. J. Carlton, L. Carr, R. Chislett, T. M. Clegg, S. Clerkin, J. R. Collman, M. D. Constable, J. G. Cook, Mrs. A. L. Cooper, A. Coupe, Miss F. E. Crackles, V. S. Crapnell, A. Credland, A. Critchlow, R. Crossley, J. Cudworth, D. B. Cutts, J. E. Dale, P. Davis, K. Dawson, M. Densley, L. G. & T. Dewdney, R. F. Dickens, C. J. Disbrey, Doncaster & D.O.S., I. R. Downhill, A. C. M. Duncan, W. G. Dye, D. M. Edge, G. R. Edwards, E. W. Ellis, P. R. Evans, Miss J. Fairhurst, W. F. Fearnley, A. E. Felgate, J. K. & A. E. Fenton, W. Flesher, H. Flood, R. A. Frost, A. Frudd, E. C. Gatenby, J. D. Gelder, Giggleswick School S., Miss E. A. W. Gill, A. Gilpin, W. W. Glencorse, D. A. Goode, P. Goodlad, E. Gorton, A. Gordon, J. R. Govett, Miss A. M. Gowland, E. Grace, J. Grace, Miss G. Granger, Mrs. W. Granger, N. Grant, T. Grant, F. D. Green, E. Greenwood, A. E. & J. B. Hague, Halifax S.S., M. Hanson, K. Hardcastle, R. Hardcastle, P. Harland, Miss R. Harricks, R. G. Hawley, J. W. Heddon, G. J. W. Hemmings, J. V. Henderson, T. W.

Henderson, M. Henry, C. W. F. Hirst, D. Hodgson, H. Hodgson, P. Hogarth, Mrs. V. D. Hollis, P. F. Holmes, R. Holmes, T. Hooker, J. R. Horne, F. Horner, Hull S.&F.N.S., P. Hurt, D. B. Iles, Miss J. Ingleby, E. E. Jackson, H. M. Jackson, H. W. Jackson, M. G. Jackson, H. T. James, F. Jefferson, T. Keeler, M. Kelly, B. Kerry, T. Kilburn, C. E. King, R. W. N. Knapton, D. Kramer, B. Lavery, J. H. I. Leach, A. H. B. Lee, J. T. Lee, J. C. Leedal, Leeds & D.B.W., C. Lees, J. C. H. Leeson, D. G. Leonard, Miss B. Lonsdale, J. Lord, B. Lucas, L. Magee, D. Mallinson, H. Marjoram, D. Marriot, R. A. Marshall, G. K. Martin, J. I. Martin, S. Martin, J. R. Mather, K. M. Mayall, R. T. McAndrew, I. McKinlay, P. McNiven, D. J. Millin, C. D. Milne, R. D. Mitchell, R. Moat, I. Morley, P. J. Mountford, F. Murgatroyd, J. J. Nathan, G. R. Naylor, M. H. Ness, S. Norman, W. Norman, A. S. Norris, G. F. Oates, R. S. Oddy, Miss K. B. Outhwaite, N. Owens, G. Parkes, R. C. Parkinson, R. T. Parrish, B. S. Pashby, M. Passman, A. Paterson, J. A. Patterson, J. Payne, A. Peck, Mrs. O. M. Pennock, J. C. Petyt, J. D. Pickup, A. Pilkington, A. E. Platt, R. S. Pollard, G. R. Potts, P. C. Quinn, J. Ramsden, M. N. Rankin, R. N. Rankin, R. J. Rhodes, W. K. Richmond, A. H. Rider, H. P. K. Robinson, Miss J. Robinson, W. K. Robinson, J. G. W. Roebuck, N. F. Robson, R. W. Robson, J. R. Rundle, D. A. Rushforth, Miss M. R. Sanderson, D. A. Scott, H. E. Scott, D. R. & P. Seaward, Sedbergh School S., J. Senior, K. Senior, Miss C. Shaddick, E. Shearer, C. R. Shoesmith, R. P. Simms, E. S. Skinner, L. Smith, W. B. Smith, D. A. E. Spalding, D. J. Standring, P. J. Stead, E. C. Sterne, K. M. Stephenson, I. F. Stewart, Miss A. Summersgill, D. & M. Summers-Smith, E. C. J. Swabey, P. Swallow, P. Swanson, A. & D. Swindells, A. N. Sykes, B. Taylor, E. W. Taylor, L. Taylor, Teesmouth B.C. (TBR), J. Temple, J. S. Trimmingham, G. S. Tuffnel, T. R. Tyson, J. P. Utley, D. Vaughan, A. Vittery, A. J. Vittery, W. C. Wakefield, Wakefield N.S., A. B. Walker, A. F. G. Walker, Miss D. Walker, D. F. Walker, J. E. S. Walker, A. Walgate, A. J. Wallis, G. Wallis, W. C. Walton, Miss C. A. Ward, N. Watmough, C. H. Watson, J. Watson, E. H. Wear, C. Webb, S. J. Wells, Wharfedale N.S., D. White, O. S. White, R. Wilby, Wildfowl Trust, G. R. Wilkinson, A. J. Williams, C. Williamson, C. H. Wilson, D. R. Wilson, L. Wilson, C. Winn, E. J. Wise, P. H. G. Wolstenholme, T. W. A. Wood, P. B. Wordsworth, C. Worrin, A. D. Wright, C. J. Wright, D. Wright, P. M. Wright, Miss M. Wray, P. Young.

The Common Lands of England and Wales, by **L. Dudley Stamp** and **W. G. Hoskins**. Pp. xvii + 366 with 28 plates, 4 in colour, and 41 text figures. *New Naturalist Series No. 45*. Collins, 1963. 42/-.

Since most of the wild tracts in this country are commons, or have been commons until recently, naturalists will find this book of great interest. In the first seven chapters Dr. Hoskins gives his views on the origin and former utilisation of commons and village greens; he traces the history of the enclosure movement and comments on the fate of the common land which survives as such. In Part Two (Chapters 8 to 25) Professor Stamp reviews the distribution of remaining commons, region by region, giving a general statement of their present vegetation, utilisation and geological foundations. The last hundred pages are devoted to an appendix in which the surviving commons are listed, with their acreages, on a county basis.

Part Two is a veritable mine of information and will stand as a useful work of reference. Part One makes absorbing reading and, provided the reader realises that it represents just the views of one writer, it can do nothing but stimulate the minds of enquiring naturalists regarding the development of the landscape beneath the hand of man. This section is ecologically disappointing however. Dr. Hoskins holds a highly romantic view of British commons which will not be shared by ecologists with their concept of 'plagioclimax vegetation' or by agriculturalists with their awareness of the sterility which was created in so many places by centuries of neglect in common usage. Indeed even historians may be provoked by the view that '... numerous small Greens of Essex and Kent ... pretty certainly originated as clearings in densely wooded country, either as natural glades (*sic*) or as deliberately cleared ground.' One could wish that Dr. Hoskins had made more use of recent work by various specialists in this field. Nevertheless, one feels indebted to him for his wealth of interesting examples and for his most interesting presentation.

The book is enriched by frequent, well-chosen plates, some of superb quality, and by over forty interesting maps and diagrams.

S.R.E.

ROSS'S GOOSE IN YORKSHIRE

A. F. G. WALKER

A 'SNOW GOOSE', lame in the left leg, was seen at Harewood Park at the end of May, 1962, by S. J. Wells, *et al.*, and was last recorded there on June 1st. On June 5th, a 'Snow Goose', also lame in the left leg, appeared at Gouthwaite Reservoir, near Pateley Bridge, and stayed until July 26th, after successfully completing the moult. Nothing more was heard of it until August 18th when a 'Snow Goose' was seen flying round Ripley Park, near Harrogate, in company with Canada Geese (*Branta canadensis*). It continued to appear at Ripley and in several localities round Knaresborough during September and October, and was identified as the same bird by the damaged left leg. The bird carried a ring. Many bird-watchers saw the bird.

Whilst the bird was at Gouthwaite, there were many opportunities for studying it at close range as it grazed close to the road or swam past. Twice I watched it at 10 to 15 yards range and also studied it at leisure in bright sunshine with a $\times 30$ telescope at a range of 20 to 30 yards for half an hour one day. It was completely flightless on June 25th and was first seen to fly strongly again on July 23rd.

The size, shape and colour of the bill did not fit in with illustrations in the *Handbook of British Birds* of Snow Goose, and it was I. R. Downhill who first suggested that it might well be a Ross's Goose (*Anser rossii* (Cassin)). I then compared the bird with the colour plate in Peter Scott's book, *Wild Geese and Eskimos*, and found that the Gouthwaite bird resembled the illustration perfectly. K. Hardecastle had, earlier in the year, kindly sent me a colour print of a 'Snow Goose' he had photographed with Canada Geese on the River Lune in Lancashire (February 11th, 1962). Comparison of the Gouthwaite bird with the print showed complete resemblance and it was concluded that both the Gouthwaite and the River Lune birds were Ross's Geese. As I gather the Lune bird was also ringed on the left leg and that it was last seen there in April, there was a strong suggestion that this was the bird which appeared at Gouthwaite. Although it was almost certainly an escape, there does not appear to have been any previous record of the species in the county.

Description: A small, rather short-necked, white goose with black primaries and pinkish-red legs and feet. The small, neat head resembled a Pinkfoot's (*Anser fabalis brachyrhynchus*) and the bill was small and stubby, even shorter than that species. The whole of the base of the bill was pale blue and the rest of the bill was dark pink apart from a cream nail. The shortness of the bill appeared to be accentuated by a steeply sloping forehead. The bird was much smaller than a Canada Goose with which it always associated and a little smaller than a Pinkfoot, though that species was never seen with it for direct comparison.

A detailed description of this bird and the photograph of the Lune bird was submitted, on request, to the Rare Birds Committee of *British Birds* which accepted the record, and the Records Committee of the Ornithological Section of the Y.N.U. agreed with the decision.

FIELD NOTE

Geastrum triplex at Spurn.—On November 25th, 1962, while taking part in a drive on the Chalk Bank South trap I saw a species of fungus which was easily recognisable as an Earth Star. It was growing close to an Elder bush on the chalk ridge which extends southwards to the 'Wire Dump' trap, this ridge having a good surface of sandy soil. The exoperidium was reflexed and had six lobes; the endoperidium was open at the apex and emitted spores at the slightest pressure. From its general appearance and size, I considered it to be *Geastrum triplex* Jungh., and this was confirmed by Mr. J. T. Palmer of Liverpool, to whom the specimen was sent. There are four previous records of *G. triplex* for the county, but this is the first time it has been recorded for V.C. 61, although Miss M. Livingstone stated that she found four specimens growing on the identical site in the autumn of 1961, but had not realised the scarcity of Geasters in East Yorkshire. It is surprising that *G. triplex*, which grows readily on sand dunes, has not been previously recorded at Spurn. I would like to thank Mr. P. J. Mountford for his help in preserving the specimen, and Mr. J. T. Palmer for his comments and information on the Geasters generally.—Mrs. G. PASHBY.

THE MAMMALS OF THE SHEFFIELD AREA

T. M. CLEGG

DURING the period 1960-63 I have spent a considerable amount of my time looking at mammals in and around Sheffield. On the west side of the city I have been trapping members of certain species in order to try to work out their distribution, especially with regard to the transition from low-lying habitats to moorland in this area. I have also had occasion to work through the mammal collection of the Sheffield City Museum and during the course of this a number of hitherto unrecorded occurrences of various species came to light. The literature on mammals in South Yorkshire is scanty and after consulting such works as exist I came to the conclusion that the following notes might be worthy of publication in order to provide a basis for future work in an area which has changed enormously since Sheffield Naturalists' Club summarised the distribution and status of vertebrates in this area in 1910. The late Arthur Whitaker worked out the status of bats in South Yorkshire in a series of papers which appeared in *The Naturalist* between 1905 and 1913.

The area to which these remarks apply stretches from Barnsley in the north to the Yorkshire-Derbyshire border in the south. Its eastern and western extremities are the Rother Valley and the moors along Derwent, parts of which are in Derbyshire. The principal river valleys in the area are those of the Dearne, Dove, Rother, Don and its tributaries, and the upper part of the Derwent. It falls within a ten mile radius with Sheffield as the centre.

The following systematic list covers all the species which have been recorded in the last eighty years or so, together with the highest altitudes at which I have found various species during the past three years.

INSECTIVORA

HEDGEHOG, *Erinaceus europaeus*. Widespread even in built-up areas. This species can be found up to 1,000 feet above sea-level in the Sheffield area.

COMMON SHREW, *Sorex araneus*. Common in hedgerows, woods, garden walls, etc. This species is frequently found at about 1,100 feet above sea-level in districts to the west of Sheffield.

PYGMY SHREW, *Sorex minutus*. Less common than the previous species but occurs in the same habitats. Out of 35 shrews trapped in the Sheffield suburb of Totley in 1962 one was of this species. During 1961 four out of twelve shrews caught at Redmires were Pygmies. In the first instance the habitats covered were gardens, hedgerows and coppices, at Redmires shrews were caught amongst stones near conifer plantations at the edge of moorland.

WATER SHREW, *Neomys fodiens*. Occurs in a number of local river valleys. A skull of this species was found in a Short-eared Owl's pellet at Redmires in 1960. Denny (1910) states that it occurs widely on the banks of local streams, but in small numbers. It is now considerably more restricted in its distribution.

MOLE, *Talpa europaea*. Widespread and increasing in the higher suburbs of Sheffield, possibly following the improvement of moorland soils by gardening. Denny mentions white and pinkish varieties at the edge of Hallam Moors in the past.

CHIROPTERA

NOCTULE, *Nyctalus noctula*. Thinly distributed in this area. The sites of a number of colonies in the Barnsley area, which were discovered by the late Arthur Whitaker about fifty years ago, have now disappeared.

LEISLER'S BAT, *Nyctalus leisleri*. Rare, no recent records. Arthur Whitaker collected them from holes in trees in the Worsbrough district.

PIPISTRELLE, *Pipistrellus pipistrellus*. The most common bat in the area. It is frequently found in buildings even in the centre of Sheffield.

DAUBENTON'S BAT, *Myotis daubentoni*. Rather local in its distribution, but still present in some of the localities described by Whitaker.

WHISKERED BAT, *Myotis mystacinus*. This species which was recorded at several sites near Barnsley about fifty years ago, may be more widespread than the number of records suggest. The only Sheffield record is of one found alive at Parkhead in 1919.

NATTERER'S BAT, *Myotis nattereri*. Fairly widespread, still present in its haunts of forty years ago. This species was regarded by Whitaker (1906) as not uncommon and occurred all over the Barnsley district.

LONG-EARED BAT, *Plecotus auritus*. Local, recorded at several sites in South Yorkshire and North Derbyshire. There are two records for the city of Sheffield, one at Fulwood in 1881 and another in London Road in 1913.

BARBASTELLE, *Barbastella barbastellus*. This species, which is rare in the North Midlands was added to the local list in July, 1960. The specimen concerned was picked up dead in a Sheffield street.

LAGOMORPHA

RABBIT, *Oryctolagus cuniculus*. Widespread and common. Rapidly recovering in numbers following the myxomatosis outbreaks of the middle fifties. In some areas black specimens form a significant percentage of the population.

BROWN HARE, *Lepus europaeus*. Widespread and common up to an altitude of about 1,000 feet above sea-level.

MOUNTAIN HARE, *Lepus timidus*. Introduced about 1870 to the moors between Sheffield and Oldham, now fairly common along the Yorkshire-Derbyshire border at Langsett, Derwent and Howden. In April, 1962, up to 30 were seen on the slope above Derwent Reservoir and on walks between Langsett and Derwent numbers in excess of 50 can often be seen. On the moors above Langsett it shares its habitat with the Brown Hare.

RODENTIA

BANK-VOLE, *Clethrionomys glareolus*. Widespread and common in hedge banks, woods, etc. at low altitudes. In February 1963, one was trapped by a moorland stream near Dore at an altitude of 1,200 feet above sea-level.

SHORT-TAILED VOLE, *Microtus agrestis*. Widespread and sometimes abundant on grass land and moors. In 1961-62 the population on marshy meadow land in parts of the Dearne Valley was very high, but on moors in the Redmires area they were scarce.

WATER-VOLE, *Arvicola amphibius*. Fairly common in the lower river valleys and occasionally found by moorland streams during the summer. On Totley Moss which lies on the Yorkshire-Derbyshire border the streams appear to be vacated during the winter.

LONG-TAILED FIELD MOUSE, *Apodemus sylvaticus*. Common in hedge banks, woods, gardens, etc. To the west of Sheffield it occurs up to an altitude of at least 1,200 feet above sea-level.

HOUSE-MOUSE, *Mus musculus*. Very common close to man and his settlements. Its habitats in South Yorkshire range from dwelling houses to the underground sections of coal mines.

BROWN RAT, *Rattus norvegicus*. Widespread and common in some areas in spite of constant attempts at extermination. This species also occurs in coal mines and on occasions when the underground workings of a rat-infested colliery have broken through into others containing House-Mice the latter have become extinct within a short time.

DORMOUSE, *Muscardinus avellanarius*. A record of a specimen caught at Millhouses, Sheffield in 1958 is the only one in recent years. The City Museum's collections contain examples from Norton in 1877 and Heeley in 1892.

RED SQUIRREL, *Sciurus vulgaris*. After some years of decrease this species now seems to be increasing slightly in areas to the north of Sheffield. It still occurs within the city boundary.

GREY SQUIRREL, *Sciurus carolinensis*. Spreading slowly now after its rapid initial colonisation of the area. Occurs within the Sheffield City boundary in the Botanical Gardens, Crookesmoor and Ecclesall woods.

COYPU, *Myopotamus coypus*. A small number, which were introduced in the Treeton area in 1959-60, were quickly exterminated. They did, however, breed whilst they were free and there is a remote chance that some survived.

CARNIVORA

FOX, *Vulpes vulpes*. Widespread, especially on moorland edges and similar rough terrain. Quite frequently seen in suburban districts.

BADGER, *Meles meles*. Widespread, with setts in all types of country from low-lying woods to moorland edges. Their distribution around Sheffield was summarised recently by C. B. Waite and R. G. Hawley (1956). Often the first indication of the presence of this species comes when one is the victim of a road accident.

OTTER, *Lutra lutra*. Rare, the few records in existence seem to be mainly of immature examples which enter the area during the winter. R. Bramhill (1952) refers to occurrences in most winters at Roche Abbey near Maltby.

PINE MARTEN, *Martes martes*. This species was regarded by Denny in 1910 as 'now probably extinct' in the area. The most recent record seems to be of one, now in the City Museum's collection, which was killed at Broomhead in 1927. In 1960 a gamekeeper in the Broomhead district told me of an unfamiliar 'cat-like' animal which he had seen in the trees of a dense conifer plantation. No further news of this animal was received however.

STOAT, *Mustela erminea*. Widespread and fairly common, quite often reported in suburban districts. Since the reduction in the numbers of rabbits it now feeds to a greater extent on Brown Rats. Individuals which have assumed white pelage during the winter have been seen occasionally on local moorlands.

WEASEL, *Mustela nivalis*. Widespread and fairly common. This species seems to be increasing in its urban appearances.

POLECAT, *Mustela putorius*. Now apparently extinct locally. In North Derbyshire it persisted until 1876 in the upper Derwent valley. Escaped Ferrets are not infrequently met with and these are sometimes reported as Polecats.

UNGULATA

RED DEER, *Cervus elaphus*. Mainly in parks now, but odd specimens have been recorded in Sheffield suburbs during the last few years. One seen in the Shiregreen area, for example, may have escaped from Wentworth Woodhouse.

FALLOW DEER, *Dama dama*. Mainly confined in parks, but a few remnants of former herds have been seen in the Wortley and Cawthorne districts recently. One on Blacka Moor in late 1962 may have come from Chatsworth Park.

ACKNOWLEDGEMENTS

I would like to express my thanks to Mr. H. R. Singleton, Director of the Sheffield City Museum, for permission to quote records relating to the specimens in the Museum's collection. Mr. J. D. Atter informed me of the 1958 occurrence of the Dormouse at Millhouses—he caught it and later allowed it to go free. Messrs. A. Archer, C. Bower and D. Standing of Barnsley passed on information on the mammals which they met with on their travels in the Barnsley area.

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How to Draw Birds, Fish and Reptiles, by Arthur Zaidenberg. Pp. 64 with 54 pp. of sketches. Abelard-Schuman, London, 1963. 15/-.

The author, when an art student in Paris, had the great good fortune to be taught by one of those rare teachers who not only lives his subject but by his enthusiasm and example successfully conveys his own feelings to his students in a way which they never forget. In turn Mr. Zaidenberg stresses the necessity of getting to know the creature you have in mind, to ascertain its character so that you have the feeling for it before you try to draw it. Ways of building up the living creature are cleverly suggested in large clear sketches. Should prove a valuable guide to anyone wanting to know how to set about drawing these animals.

E.H.

DR. BEDFORD'S OBSERVATIONS AND FIELD EXPERIMENTS ON *ORTHOTHECIUM RUFESCENS* AND *O. INTRICATUM*

G. A. SHAW

THE late Dr. T. H. B. Bedford devoted considerable time to a study of the reasons for the infertility of dioecious mosses, and was able to show that this was due in great measure to the separation of the two sexes. An excellent paper on 'The Sex Distribution in Colonies of *Climacium dendroides*,' was published by him in *The North Western Naturalist*, **13**, 213-221 (1938) in which he showed that fruiting could be induced in female colonies by introducing male plants.

Shortly after Dr. Bedford's death in December, 1961, his specimens and certain notes were passed over to me by his widow, Mrs. Olive Bedford. Among these are numerous packets of the two species of *Orthothecium*, *O. rufescens* and *O. intricatum*, from various sites in Yorkshire and Westmorland, and specimens resulting from some field experiments which he carried out. It was, I believe, Dr. Bedford's intention to write a paper on this subject, and I feel it a privilege to put together the following notes, based on his investigations.

Orthothecium rufescens (Brid.) B. & S.

This moss is exceedingly rare in fruit. According to Dr. Bedford the colony of *O. rufescens* at the head of Heselden Ghyll is entirely female, whilst the colony at Kisdon, Swaledale, is entirely male. It might be asked here how this conclusion was arrived at, and one can only assume that he adopted the method he used for sexing colonies of *Climacium*, as described in the above-mentioned paper. The following extract is taken from that paper; 'Theoretically, the whole of the plants in a colony should be examined in order to determine the sex distribution. This is manifestly impossible unless the colony is small, and it has frequently been necessary to resort to a system of sampling. Small tufts containing 10 to 20 plants were gathered at regular intervals throughout the colony. This was done systematically and the tufts were placed in a definite order in a sponge bag. When the material came to be examined, it was possible to obtain a fair idea of the relative positions of the plants of different sex . . .'. The absence of fruit at Heselden Ghyll or Kisdon would tend to confirm his findings.

Experiment I. In April, 1939, a small tuft of female *O. rufescens* from Heselden Ghyll was implanted in the colony of male *O. rufescens* at Kisdon. About a year later out of twenty transplants, nine were bearing fruit. Most of the remainder had been displaced during the severe winter.

Orthothecium intricatum (Hartm.) B. & S.

This, too, is exceedingly rare in fruit. According to Dr. Bedford, colonies of *O. intricatum* at Ais Gill, Black Dub and Hell Gill were all female, and at each site were intimately associated with the male plants of *O. rufescens*. Examination of the *O. intricatum* showed that it was bearing fruit at all three sites, and in view of the facts stated above, Dr. Bedford was convinced that the female *O. intricatum* had been fertilised by the male *O. rufescens*.

Experiment II. In 1940 a tuft of female *O. intricatum* from Garsdale was implanted in male *O. rufescens* at Kisdon. A year later the introduced plants of *O. intricatum* were fruiting, having apparently been fertilized by the male *O. rufescens*. H. N. Dixon (in letter dated June 29th, 1940) accepts these findings, but at the same time says: 'I should have expected to see some more definite influence of the *O. rufescens*; I do not see any; the seta is scarcely longer than normal and the capsule seems to be that of *O. intricatum*; at any rate it has the shorter lid. If and when there is plenty of fruit available it might be interesting to see if there is any influence on the exothecium cells or any trace of cilia in the peristome.'

CONCLUSION

It is shown that (1) the lack of fruit in *O. rufescens* is due to the isolation of the sexes, and that if the two sexes are brought into contact, fertilization occurs and fruit is formed.

(2) Similar reasons explain the lack of fruit in *O. intricatum*, but fertilization of female plants can be effected by male *O. rufescens* when in close proximity.

BOOK REVIEWS

Learning and Instinct in Animals, by W. H. Thorpe. Second Edition. Pp. 558 with nine plates. Methuen & Co., London, 1963. 63/-.

The first edition of this book published in 1956 (reviewed in the *Naturalist*, 1956, pp. 152-153) was a most important synthesis of the work done in this field and gave a valuable statement of the position the subject had reached at that time. This is, however, one of the rapidly advancing frontiers of zoology and is attracting much research activity. Dr. Thorpe has incorporated the results of this into the new edition both by additions of new references to the appropriate paragraphs and by revision of certain sections. The basic contents, the lay-out and format of the book remain substantially the same. The most important changes have been to the neurophysiological chapter regarding the possible rôles of D.N.A. and R.N.A. in this context, the inclusion of work on the platyhelminthes, revisions of the cephalopod section, and the bird-orientation section and additions to the section on the using of tools by birds and finally and most importantly to the list of references. The chapter on mammals, which remains virtually unchanged, reflects the disappointing lack of work on this difficult group. It is most valuable to have this major work brought up-to-date, and at a very mild increase in cost.

I.W.

The Origin of Races, by Carleton S. Coon. Pp. xli+745 with 32 plates, 84 figures and 13 maps. Jonathan Cape, London, 1963. 63/-.

The central theme of this book is of much technical interest but can be considered almost incidental to the enjoyment of the book as a whole. Many of the broader concepts in biology, including that of evolution itself, have appeared a number of times in fragmentary form or merely as isolated ideas and attracted little attention; their hope of serious consideration depends upon their presentation against a thoroughly documented background, with all the relevant evidence assembled, and in the book under review this background is fascinating in itself and quite admirably assembled. The whole history of the primates is outlined, with a discussion of the evolutionary forces bearing upon it and a summary of the changing geographical and climatological environments, becoming more detailed as the hominid level is approached through the Dryopithecines and Australopithecines; finally for the genus *Homo* a full description is given of all the known remains. This description is well balanced and very complete and is written so that the unavoidable abundance of anatomical detail can easily be skipped without seriously interrupting the flow of the narrative, giving the reader of more general interests by far the best available account of the whole fossil history of man. Throughout the book also there is a series of new or freshly orientated ideas of much interest—on human pygmies and their possible significance, on the effect of social life on human evolution and so on—of which a reassessment of the Neanderthal people might particularly be mentioned.

To consider now the main thesis of the book. Coon suggests that the races of men can be looked upon as sub-species, which may be accepted as a reasonable view, but then goes on to point out the difficulty in understanding how this separation from an assumed homogeneous population of *Homo sapiens* could have taken place in the relatively short time available. His solution is to suggest that these sub-species actually antedate *Homo sapiens*, in other words that they had become separate at an earlier or *Homo erectus* stage and evolved more or less in parallel. Hence the various races of mankind crossed the *erectus-sapiens* threshold independently, to become fully human at different times in different places and, of course to different degrees. From the point of view of evolutionary genetics such a suggestion would have appeared most unlikely even twenty years ago, when it first occurred to Coon, but since then work particularly on birds has rendered it theoretically unobjectionable. Nor does the level chosen for drawing the inherently arbitrary line between sub-human and human—based on brain size, use of tools and fire, power of speech and so on—seriously affect the issue, since even at its earliest it can still be considered too recent. The main difficulty is simply to establish the theory with reasonable plausibility on the basis of the very scanty evidence available, and here one can only say that Coon has argued his point of view well. Taking his five primary races he can make a good case for the direct derivation of the Mongoloids, and hence of all the peoples of the Americas as well, from the Peking remains at the *erectus* level, a suggestion indeed made some years ago by Weidenreich; for the Caucasoids of farther north and west and for the Australoids of farther south he can produce

some evidence in favour of a separate origin and emphasise that there is none against, but for Africa only speculation is possible at present. Here he divides the races into a Congoid group of Negroes and Pygmies belonging to the tropical west, with no known forerunners, and a Capoid of Bushmen and Hottentots, originating in North Africa and driven south later by Caucasian pressure.

The main objection to the book may well be emotional, with its implication that the difference between races is rather deeper than generally supposed, but equally this makes it all the more desirable that the facts should be established. A further volume on living races, in which such important topics as blood grouping can be adequately treated, is promised and must be awaited with genuine anticipation.

T.K.

Collins Guide to Bird Watching, by R. S. R. Fitter. Pp. 254 with 40 photographic plates and 49 line drawings. Collins. 21/-.

This latest addition to the bird watcher's library is well produced, though there is inevitably some duplication of the ground covered by earlier writers.

The first section on 'How to Watch' is an introduction to the basic aspects of the subject. Valuable information for beginners is given on the wide variety of literature available and the book is naturally complementary to the author's earlier *Pocket Guide to British Birds*. He gives guidance on note-making, selection of binoculars and the attraction of birds into gardens for feeding and nesting. Hints on first-aid include advice on dealing with injuries, the disposal of supposedly abandoned young and the feeding of deserted fledglings or injured birds. Scientific enquiries are briefly introduced and photography and sound recording are also covered. A short history of organised bird watching in Britain shows how far the interest has widened since the sixteenth century.

The second part of the book on 'What to Watch' is perhaps disappointing. This consists of what the author describes as thumbnail sketches of typical birds, supported by good black and white plates. These sketches are hints on identification rather than full plumage descriptions. With no colour illustrations the reader is referred to the *Pocket Guide* for more complete identification reference. While this section has its limitations there is much useful information for the beginner.

A topographical guide forms the third part of the book and it is a first-class compendium of information for the itinerant bird watcher with generous information on places to visit and birds to be found. Where the locality of rarities is concerned, Mr. Fitter is discrete, which is more than can be said for some authors. The guide describes the habitats, special birds, nature reserves, societies and literature of each county. It is regrettable that many natural history societies must have been omitted because they do not specify 'bird watching' or 'ornithological' in their titles. Many such societies describing themselves simply as 'natural history' groups include very active ornithological sections, but have been excluded from the references in this book. It is perhaps hard to criticise the author for this but equally the societies concerned can scarcely be expected to splinter into their various sections in order to secure recognition.

A good book, as far as a complementary volume can be, and the final section justifies its inclusion in a reference collection.

A.H.B.L.

Birds of the World, by Hans Hyass, translated by Gwynne Vevers. Pp. 210, with illustrations in colour covering 1,100 species by Wilhelm Eigener. Methuen. 21/-.

Prior to the Second War, the ornithologist seeking birds on the Continent had difficulty in finding illustrations of certain birds absent from the British List such as Corsican Nuthatch, Blue Rock Thrush and Azure-winged Magpie, but this was remedied in 1954 by an excellent Field Guide. Now in compact form, the entire world is covered, with emphasis on European birds and those of North America; and to mention four of the colour-plates featuring Trogons, Cranes, Pheasants, and Peafowl, each is a triumph of artistry and printing. Every bird figured is supported by a brief descriptive text. There is a mix-up concerning Ural and Lapp Owls, but it is an excellent book for the bird-lover and at a guinea is remarkably good value.

J.A.

A Sailor's Guide to Ocean Birds (Atlantic and Mediterranean), by **Ted Stokes**. Pp. 64 with 18 pp. of black and white illustrations. Bosun Books, No. 18. Adlard Coles Ltd. 1963. 6/-.

For what the book sets out to be and at the modest price, this is an admirable pocket guide. It is intended as a quick reference book for the average sailor who is no expert on birds and as such it will help to ensure that for at least some, 'idle curiosity grows into serious interest.' Five albatrosses are briefly described, only one illustrated. Of twenty-three species of gulls, only eight are illustrated. The Iceland Gull is simply described as 'a small version of the Glaucous Gull.' The illustrations by Keith Shackleton are for the most part adequate for their purpose. Some of the best are obviously Peterson-inspired. The auks, in particular are not well proportioned.

The whole of the Atlantic seabird species are dealt with in this small compass. A first sighting recognition table would need to be tested by a novice to prove its worth. He would perhaps be a little disturbed to find that on the grounds of possibility a medium-sized mainly white bird with pale grey wings which he had seen could be any one of ten species. For the idly curious, it is a quite good little guide, or a good buy for the schoolboy beginner who is spending a holiday by the sea.

R.F.D.

A Guide to the Birds of Sussex, by **G. des Forges** and **D. D. Harber**. Pp. 177 with 12 full-page photographs of habitats, and an outline map. Oliver and Boyd, Edinburgh. 30/-.

The authors record their 'enormous debt' to the late J. A. Walpole Bond and his monumental *A History of the Birds of Sussex* (1938), the records in which are brought up to date and subjected to necessary editing where insufficiently authenticated. The problem of the so-called 'Hastings records,' 'a controversial topic which we would have been glad to avoid,' has been faced fearlessly. Following the findings of E. M. Nicholson and I. J. Ferguson-Lees published in *British Birds*, 40 listed species and six races have been jettisoned from the Sussex List; details of all can be found in *A History of Sussex Birds*; some of them will doubtless eventually need to be brought back when again recorded under modern techniques. The authors had the advantage of having edited ('one or other or both') the Sussex Bird Report for a number of years.

Carefully and adequately compiled, well printed on good paper, the book is a necessity to anyone who studies birds seriously in Sussex. Some of the names on the folding map that follows the index stress the quality of the county: the Downs, Ashdown Forest, the Midrips, Beachy Head to Pagham and Chichester Harbours, and Thorney Island, where only have I seen Greenshanks in flocks of more than 50 silvery birds. Sussex still has breeding Stone Curlews and Cirl Buntings; and had Bee-Eaters in at least one recent year.

R.C.

Collins Field Guide to Archaeology in Britain, by **Eric S. Wood**, with an introduction by Sir Mortimer Wheeler. Pp. 384 with 59 photographs and 189 maps and line drawings. Collins, 1963. 25/-.

Mr. Wood is to be congratulated on this latest book in the Collins *Field Guide* series.

In Part I the general background of geology, climate and cultures is treated. Compression has, unfortunately, made a number of hypotheses sound as though they were proved facts, and some of the historical statements made, e.g. the total loss of the Ninth Legion in 117-120 are not in accordance with modern scholarship. Part II describes Field Antiquities, and is the more important part of the book. Mr. Wood has gathered together a great deal of information and the fifty pages of odds and ends contain information which would be difficult to find elsewhere. Part III gives a summary of Archaeological Techniques, and Part IV gives the names of Societies and Sites to visit and a Book List. This could have been improved by giving more basic site reports, e.g. in Yorkshire, Professor Clarke's report on Starr Carr, or Sir Mortimer Wheeler's on Stanwick, rather than more general works, many of which are out of date. Some of the authors and titles are inaccurately noted: 'A Short Guide to Roman York' is wrongly ascribed to G. G. Watson, and the correct title of the R.C.H.M. volume is 'Eboracum.'

G.F.W.

A Guide to the Study of Fresh-water Biology, by J. G. Needham and P. R. Needham. 5th Edition. Pp. x + 107 with 15 pages of illustrations consisting of numerous drawings and 13 text figures. Holden-Day, Inc., San Francisco, distributed in Britain by Constable & Co. Ltd. 25/-.

This is mainly a guide to the freshwater animals of North America. The only plants included are algae which are partly in a key and partly in a heterogeneous list of Protozoa. The drawings of algae are helpful but the key is unsatisfactory and contains several misprints. The beginner may well find difficulties which are not resolved in the glossary. The zoological section of the book is attractively produced with well-packed plates but it is questionable whether its merits outweigh its limitations for the British naturalist except in cosmopolitan groups such as Protozoa and Crustacea. The section on fish has little relevance to Britain but reminds us of the poorness of our fish fauna. The section on methods is not of much use to a botanist. It is a little difficult to see why some chemical estimations are advised and others omitted. In any case those for whom apparently the manual is devised might apply the remark at the end of the description of the oxygen method to all such water chemistry—'untrained persons should not be permitted to make (oxygen) analyses.' There are several suggestions for collecting which could be improved. Polythene are preferable to the quartz bottles recommended and the lifter and handscreen described seem to have less utility than a wide-bore pipette and a stout pond net. If by a 28-mesh sieve is meant 28 meshes per linear inch then most of the fauna would be lost. The book has merits but the British collector should not put it high on his list. For identifying animals one of the British guides listed in the references is a better starting point and there is a good American guide to algae which is not listed.

J.W.G.L.; J.H.M.

Wildlife in Britain, by Richard Fitter. Pp. 191 with 67 illustrations, mainly from the National Collection of Nature Photographs. Penguin Books, 1963. 7/6.

This book was published in collaboration with the Council for Nature in connection with the National Nature Week Celebrations of May 18th to 25th, 1963. It deals comprehensively with the plant and animal life of the British Isles, in a general way, and with the natural history movement which has grown up to study them, and which has latterly become acutely aware of the need to conserve them.

The climatic and geological factors which determine our flora and fauna are first described and separate chapters dealing with plant and animal life are followed by consideration of their habitats. In addition to tracing the growth of the natural history and conservation movements, the author indicates the sort of work which naturalists are undertaking and how others can help. Each chapter is followed by a useful 'Further Reading' list.

The whole book is done with Fitter's customary thoroughness. For this type of publication, the photographs are remarkably well reproduced.

The appendix might suggest that Barnsley and Castleford, for instance, have local naturalists' societies, while Bradford and Hull lack them. It is, of course, a list of society members of the Council for Nature, to which no local society can afford not to belong.

This book should be put into the hands of everyone, especially the youngster, who shows the slightest interest in the wildlife of Britain, and concern for its welfare. Local societies could do worse than present all their junior members with a copy.

R.F.D.

The Web of Life: A First Book of Ecology, by J. L. Storer. Pp. 142 with 47 photographic illustrations. Vincent Stuart Publishers Ltd., London, 1963. 21/-.

In this book the author attempts to show the wholeness of nature; the complex balance which exists between all living things, both plant and animal, and between them and their physical environment. In other words he deals with the basis of ecology, and does so in a simple and straightforward manner. The author goes on to show how man has influenced, and in many instances destroyed, this balance and in so doing has altered and devastated the land. The most familiar examples are the dust bowls and man-made deserts which have replaced former grasslands and forests of the United States, yet the general message is the same the world over and the book becomes a powerful plea for conservation in its widest sense.

D.D.B.

The Insect Factor in Wood Decay: an account of the wood-boring insects with particular reference to timber indoors, by **Norman E. Hickin**. Pp. 336 with 2 coloured plates and 263 black and white figures. Hutchinson, 1963. 50/-.

Insects are the most important group of animals which damage wood and most people will have seen evidence of the work of the furniture beetle, *Anobium*, while the destruction caused by the death-watch beetle, *Xestobium*, in the old oak timbers of York Minster and other historic buildings is well known. Less familiar is the house longhorn beetle, *Hylotrupes bajulus*, which only occurs in pest numbers in Surrey, and the large wood-wasp, *Urocerus gigas*, which sometimes causes alarm when it emerges from the timber of new houses. Dr. Hickin describes these insects and their allies and others which may occur in timber in Britain, whether indigenous or as importations, so that they may be identified and their effect on wood known. Those which do most damage, e.g., the furniture beetle, receive detailed treatment; those of no economic importance are more briefly described, sufficiently for their identification and an understanding of their harmlessness. Keys for the identification of species are given for all the longhorn beetles likely to be found in Britain and for some other genera. The abundant illustrations facilitate recognition of the species described. Insects are only included here if they are likely to be found indoors and such serious pests of growing timber as the bark beetles (Scolytidae) only receive brief mention.

This is a text-book for the student and practitioner of wood preservation which surveys competently current knowledge in its field. It will be extremely useful, not only to these but to public health officers who have to advise on pest infestations and who are called upon to identify the insects that have been found in houses. The extensive lists of references are a guide to much specialised literature. The index is not perfect. The reader who tries to trace any reference in the text to two of the beetles figured, *Pseudoccocephalus picipes* and *Cylindrus niger*, will have a problem.

J.H.F.

Animal Life in Fresh Water, by **Helen Mellanby**. 6th Edition. Pp. 308 with 212 text figures. Methuen, 1963. 25/-.

This book is a new edition of an old favourite. That it is in continued demand is its best recommendation. It contains drawings and descriptions of all the reasonably common fresh-water animals to be found in Britain together with interesting accounts of their life histories and distribution. The drawings are simple, accurate and informative and should promote easy identification at least to genus, often to species. It is a convenient 'pocket size' and makes an admirable field book as well as a simple laboratory handbook.

It is written in a style which is useful to school teachers and amateur naturalists and yet commands the respect of the more academic biologist. The new edition, revised and reset, brings classification, nomenclature and references up to date. The figures are still clean and sharp and show no signs of their continuous reproduction. The book remains as valuable as ever for all institutions engaged in the teaching of field biology.

H.H.

People of the Forest, by **Hans Lidman**. 80 pp. text and 143 photographic illustrations. Oliver & Boyd. 42/-.

This breath of forest air could live by its illustrations alone. Outstanding monochrome photographs of an extraordinarily rich, wild life and scenery in one of the great Swedish forests are printed, mostly full page without margin or title and some even double page, with beautiful gradation and pleasant semi-matt texture. The text which supplies the missing titles (but why not a list of illustrations somewhere?) is far more than a 'lantern lecture' to the pictures, but gives the impression of a generalised synthesis rather than of precise ecological study. There is, however, sufficient topographical and background detail to re create the atmosphere of the forest in each successive season. Though in an easy narrative style, it could only have been written by a true naturalist, and being free from much technical detail can be recommended for general reading or for the young naturalist. Sometimes there are snapshots in the narrative as sharp and revealing as those of the camera close-ups.

G.E.P.

Plants that changed the World, by **Bertha S. Dodge**. Pp. 164 with 9 sketches in black and white. Phoenix House Ltd., London. 15/-

The writer describes how seven plant products were originally collected and brought into cultivation. The commodities range from wax, rope and rubber to foods and drugs. Few people would include breadfruit, cocoa and chaulmoogra seeds (a former palliative in leprosy) amongst the world's most important plants but the choice has obviously been made on what journalists would call 'a story'. The adventures experienced by intrepid plant hunters are related in an accurate and exciting style which almost puts the book into the 'thriller' class. Well printed and bound, it is singularly free from typographical errors but has a few dubious passages, for example, the all-conquering Spaniards were 'vanquished' (p. 22) by the Aztecs' cocoa, and (p. 42) 'the great and noble Count of Chinchon' is credited with popularizing Cinchona bark. But it was Ana, his Countess, who had the fever and encouraged its use: why should it otherwise have carried the synonym Countess Bark for over two centuries? But these are small matters in a book well worth reading—and re-reading.

G.R.N.

Watch for the Otter, by **Elaine Hurrell**. Pp. 115 with 47 photographs and five diagrams. Country Life, London, 1963. 18/6.

This attractively illustrated book outlines some of the difficulties encountered so frequently by naturalists interested in the recording of British mammals and their habits. H. G. Hurrell and his family investigated the otter population of their Devonshire neighbourhood from 1957 to 1961. This account tells of their experiences, the highlights and the frustrations, how they overcame some of the difficulties peculiar to observing this nocturnal yet perhaps most fascinating of our native creatures and offers useful guidance to others who would care to carry out surveys of our greatest wanderer in their own localities. 'The value of 'signs and indications' such as its seals, hovers, holts and spraints denoting the presence and feeding habits of the unseen animal is duly stressed. Much helpful information was gained by keeping in captivity two otters which later became film stars in their own right. The book is a useful and entertaining addition to the natural history records of our British mammals. The mysterious 'black tarry spraints' so often mentioned no doubt refer to digested blood which I have found so frequently in the stomachs of members of the British Mustelidae.

E.H.

Shark! Killer of the Sea, by **Thomas Helm**. Pp. 190, with 14 photographic illustrations and 22 drawings. Robert Hale, 1962. 18/-.

Popular interest in life in the sea has been intensified in recent times not merely by the increasing number of books on marine life but particularly by the fascinating revelations of underwater cinematography with its intimacy and element of adventure. The powerful but seemingly effortless propulsive movements of the shark through the water among shoals of small fish and round rock and coral reef seeking its food has become a striking and familiar feature of film presentations but, with records of the dangers of shark attacks on surf bathing beaches in many parts of the world, it is regarded as a fearsome monster. This sinister reputation is examined and discussed in the lively and interesting narrative of this book and the author, himself a keen angler, is able to contribute many informative and dramatic accounts from his own experience in American coastal waters.

It seems there has been a rapid rise in the number of shark attacks in the last few years and explanations based upon increased numbers of shark or more skin-divers or warmer waters have not provided the complete answer. Except for the large Whale and Basking Sharks, content to feed on small marine organisms and harmless to man, these fish have a rapacious way of life and with their size, teeth, jaws and instincts can become dangerous to man. Their sight is not good so that the hunt depends primarily on the nose and the smell of dead or dying fish in the water or blood will attract them from a distance. Putrid fish, however, is avoided and this aversion led to a search for chemicals with repellent effects which could be used for the protection of swimmers. An interesting summary of investigations into ways and means of protection is the substance of the concluding chapter of the book.

E.A.S.



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Ralph Chislett, F.R.P.S., M.B.O.U. W. H. Pearsall, D.Sc., F.R.S., F.L.S.
Ellen Hazelwood, F.L.S. E. W. Taylor, C.B.E., D.Sc., F.R.S.
Mrs. Elsie M. Morehouse. H. C. Versey, D.Sc., F.G.S.

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YORKSHIRE NATURALISTS' UNION ORNITHOLOGICAL SECTION

In conjunction with the Ornithological section of the Y.N.U., the Doncaster and District Ornithological Society have arranged a joint meeting with the British Trust for Ornithology to be held at the Doncaster Museum and Art Gallery, Chequer Road, Doncaster on the afternoon and evening of Saturday, 30th November, 1963, commencing at 3-0 p.m.

For the B.T.O., Ron Hickling, whose subject is "How many birds?" will be speaking on the vital topic of the effects of toxic chemicals. After tea R. F. Dickens will speak for the Y.N.U., on his studies of Skuas in Shetland and Iceland.

Bookings for tea to J. B. Hague, 17a Woodfield Avenue, Mexborough, with 5/- remittance.

Exchange copies of the following periodicals may be had on loan from The Editor of *The Naturalist*, The University, Leeds 2, on receipt of stamped addressed envelope :

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SPURN POINT AND ITS PREDECESSORS

G. DE BOER



THAT the interest of members of the Y.N.U. in the flora and fauna of Spurn Point extends also to the history and character of their habitat as a physical feature is attested by a number of contributions to this theme that have appeared in *The Naturalist* from time to time.¹ This present article presents the results obtained so far of investigations by members of the Department of Geography, the University of Hull, made possible by a grant from the Nature Conservancy in 1959, and much helped by the friendliness and co-operation of the officers of the Yorkshire Naturalists' Trust.

Information relating to the earlier history of Spurn Point is quite plentiful, varied, and intriguing, but because it consists of isolated scraps of information rather than a connected narrative, there has been much difference of opinion and confusion in its interpretation, the more so because of the mutability of Spurn Point as a physical feature and corresponding variations in place names. Speculation about the evolution of Spurn Point as a physical feature has been much more limited, indeed little has been added to the suggestions made by Clement Reid in the Geological Survey Memoir on Holderness of 1885.

This is no doubt partly because for the last century, and therefore for much the greater part of the time for which reliable maps are available, Spurn Point has been maintained artificially following the closing of the breaches of 1849-56 and the placing of groynes along the seaward side of the threatened portion; as a result, that part of the history of Spurn for which there is the clearest and best evidence is the least representative of the whole. The main developments of these last hundred years can be gathered from a comparison of the first Ordnance Survey six-inch map of Spurn of 1852 with the current edition which is based on a survey of 1928. The 1852 map, made before the main breach had been closed, shows that the neck of Spurn at high water was a string of small islands and that the Head with the light-houses was a larger island; it is in fact named Spurn Island on this map. It was suffering severe erosion and was long and slender (Fig. 1b). On the 1928 map, little change in the position of the seaward side of the Head is shown, but, as a result of the closing of the breaches and the building of groynes, high water mark along the sea side of the neck is some yards seawards of the 1852 line, very probably the only such advance in the whole history of Spurn. The tip of Spurn, made narrow and tapering by erosion in 1852 has, on the 1928 map, been restored to the bulbous shape which it seems generally to have had. In 1870 the site of the breach was further strengthened by the building of the Chalk Bank.

Spurn Point therefore at the present time is not a fair sample of what there has been there before, so that it is necessary to use caution in applying arguments based on what is happening there now to what might have happened in the past, when Spurn has been of a very different size and shape. To provide a full account of Spurn, therefore, we have to have recourse to evidence of earlier periods, evidence of possibly dubious reliability, and which, as was said earlier, consists of items of information which need to be threaded together in the way which most agrees with and makes the best sense of all that is known. The problem has been therefore attacked on two fronts, in the field by a study of the movements of material along the beaches at Spurn and of the conditions associated with accretion or erosion there on the one hand, and on the other by a comprehensive examination of the historical data. Miss A. W. Phillips undertook the greater part of the work in the field and the present writer has been responsible for the historical aspects of the enquiry and for combining the two in the hypothesis presented below.

The main processes involved in the building of Spurn Point have always seemed fairly clear. Sand and shingle derived from the erosion of the cliffs of Holderness are carried southwards by wave action and are thrown up to form a spit which grows longer as material is carried along the beach and deposited at the tip which is still extending southwards. Some stays here, some is carried by refracted waves round to the Humber side and helps to give the tip its bulbous shape, and some is swept by

¹ J. Cordeaux, (1884). *The Spurn*. 1-8.

T. Blashill, (1904). *Changes in Spurn Point and their bearing on the site of Ravenser*, 264-268.

A. E. Butterfield, (1904). *Notes on the Growth of Spurn*, 325-328.

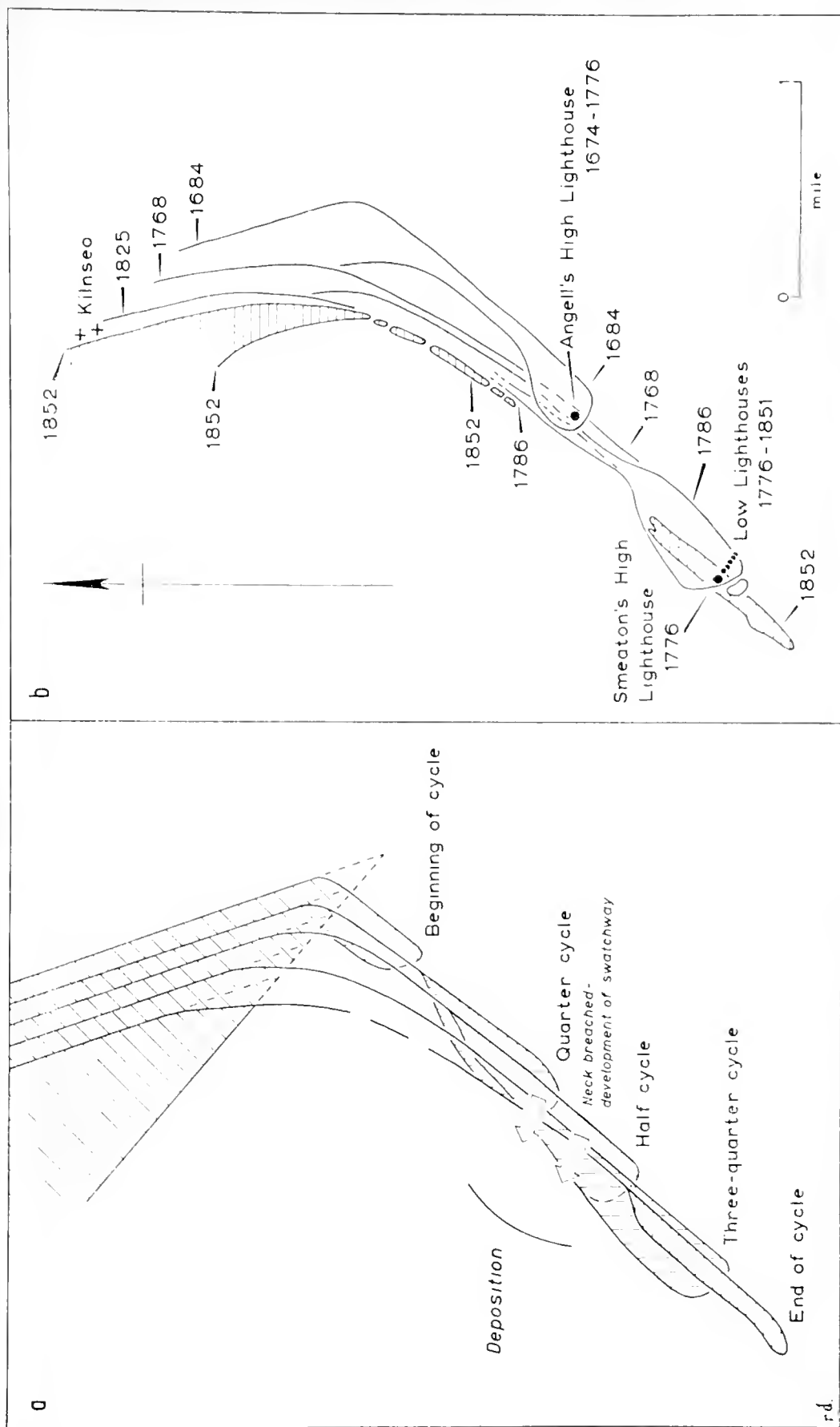
G. H. Ainsworth, (1951). *The Entomology of Spurn Peninsula: 1 A Short introduction to the Ecology of Spurn*, 78-83.

the ebb-tide on to the Stony Binks, the great banner-like shoal that curves seawards from the tip. Experiments by Miss Phillips with tracer pebbles have confirmed this. Sand is swept up by the wind from the wide beaches exposed at low tide and is built into dunes which are colonised by plants. This very general account fails however to explain the existence of Old Den, the shoal of muddy shingle in the Humber a quarter of a mile off the Chalk Bank, and the phases of destruction that historical evidence indicates have punctuated periods of relative stability and growth. A satisfactory account has to explain therefore how a constructional feature such as Spurn Point is built at all on a coast where wave activity is so generally destructive, why construction should at intervals turn to destruction, and has to show how all this harmonises with the historical evidence.

One conclusion reached by Miss Phillips has a very important bearing on this point. Regular surveys and plots of profiles of the beaches studied in relation to wind and wave records show that serious erosion of the beaches is almost exclusively associated with winds of over 15 knots blowing from directions between about north and north-west. These winds, which blow from the North Atlantic along the length of the North Sea, are responsible for the biggest and most powerful waves which occur, and these are refracted on to the Holderness coast and Spurn Point with destructive effect. Because they blow in the rear of depressions crossing the North Sea, north-westerly gales are often associated with surges, that is the raising of sea-level as a result of wind and barometric pressure distribution, and the most destructive conditions of all occur when such a surge, high spring tides, and north to north-westerly gales coincide. Winds of less strength from this direction or almost any strength from other directions have either little erosional effect or cause accretion on the beaches. Evidence to much the same effect was given in 1907 before the Royal Commission on Sea Erosion which reported in 1909. 'The only real sea erosion occurs in gales from north-west to east. Gales from south to east cause no erosion on this coast worth mentioning.' It was in just such conditions that the breach of 1849 was made. The conclusion appears to be that those parts of Spurn most exposed to waves from these directions are particularly liable to damage, and if the natural course of development followed by Spurn Point leads to such exposure, then a breach sooner or later will be inevitable.

The natural course of development followed by Spurn Point does, in fact, seem to lead to just this situation. The south-eastern end of Holderness, the root from which Spurn grows, is wedge-shaped; coastal erosion is constantly shaving away one face of the wedge at a sustained rate for which there are few parallels in the world. As therefore sea erosion causes this side of the wedge to retreat south-westwards, the point of the wedge, the root of Spurn, will fall back even more rapidly, in fact, because the angle of the wedge is about 30° , about twice as rapidly. The neck of Spurn will therefore be extended after it in the same direction and so will become increasingly exposed to the quarter from which destruction comes.

Figure 1a represents the theoretical cycle of development to be expected on this basis. The shaded triangle represents the wedge shaped root. Let us suppose that one 'Spurn' has just been destroyed and that a new one is developing. It seems likely that the new Spurn will grow out from the root in the direction which is most sheltered, and this is south-eastwards, tucked up as it were into the mouth of the Humber in the lee of the wedge. There may be a fairly sharp angle where the spit joins on to Holderness. As waves carry material along the beach of this new feature and round its end, so a broad end will be formed that will grow out farther and farther. Wave energy will be concentrated by refraction on to the initial sharp angle which will be modified in consequence into a broader curve. All the while, however, the withdrawal of the point of the sheltering wedge means that the spit is becoming more exposed, that the balance of conditions, which in the early stages is tilted in favour of construction, swings over to the other side. Eventually, when it has thus become vulnerable, the neck will be breached, probably when a north to north-westerly gale coincides with a high spring tide. The material torn out of the breach will be carried into the Humber and dumped there as a shoal, a process perhaps aided by tidal currents sweeping through, which will develop the breach into a swathway or transverse tidal channel. Material moving along the beach will be carried though the breach or swathway, so the head, no longer supplied, will dwindle away. What remains of the neck will probably be pushed back by the sea, and relative stability will only be achieved and growth renewed when the beginnings of the new spit are in the lee of the new position of the root.



(b) Spurn Point 1684-1852.

Fig. 1. (a) Hypothetical evolution of Spurn.

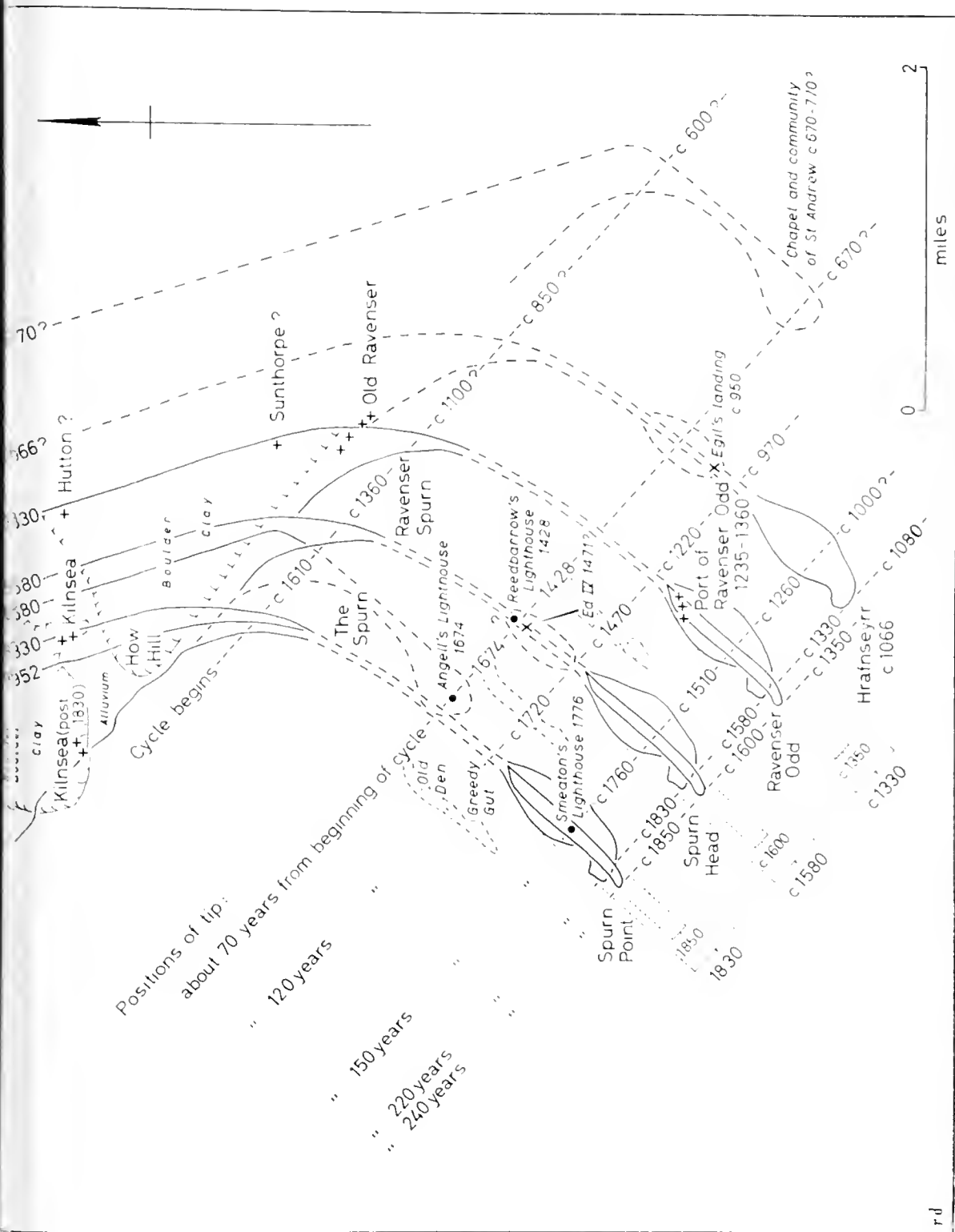
The evidence from Miss Phillip's field work bears out this hypothesis as far as it goes but it obviously cannot provide confirmation for the whole pattern of variation outlined above. It does show that the erosion of the beaches during strong north-westerly gales is more severe on the exposed section from the neck northwards than along the head, but to find out how long it takes after one breach for a new spit to grow out until it is breached in its turn, the pattern of events when a breach is not closed artificially, and the succession of shapes presented by the spit as it develops, we must turn to the historical evidence.

This evidence suggests that there is an interval of about 240 to 250 years between major breaches; Ravenser Odd was destroyed in about 1360, the spit that developed after this was breached in 1610-20, and its successor would almost certainly have disappeared if the breaches of 1849 to 56 had not been closed. Blashill made a similar suggestion in his article of 1904. '... There seems to be a possibility that between the destruction of Ravenser Odd and the formation of the present bank of shingle, a new and distinct Spurn Point was thrown out and destroyed.' However, it is only for the period from about 1610 onwards that the historical evidence is sufficient to provide a continuous story. There are maps, charts, sailing directions from pilot books and a great deal of information from litigation about the Spurn lighthouses.

The early seventeenth century breach is referred to by a lawyer Robert Callis in a course of readings or lectures upon the Statute of Sewers given by him in 1622: '... of late years parcel of the Spurnhead of Yorkshire which before did adhere to the continent was torn therefrom by the sea and is now in the nature of an island'—and in a lawyer's brief for a lawsuit of 1684 which summarises evidence to the effect that Ravensey Spurn had been swept into the Humber near the beginning of the century. Pilot books of the period provide further details. *The Light of Navigation* of the Dutch cartographer W. J. Blaeu, first published in English in 1612, describes conditions before the breach. The mariner sailing into the Humber is directed to get Patrington steeple (mistakenly called Poltoren) in line with the tip of the north point of Humber which is Ravenspurre. Blaeu's *The Sea-Mirroure* (first English edition, 1625), which superseded *The Light of Navigation*, shows the effects of the breach. The mariner now must get Patrington steeple (confused with Paull again) a little south of the north point (i.e. the spit is shorter) and "runne to the little Iland which lyeth a little by west that foresaid north poynt." The chart in John Sellers' *The English Pilot* (1671) shows the 'north point' still well short of the little island now labelled 'The Denn.' Nearby contemporary depositions of witnesses tell us it was also called John Harrison's Hill or the South Point. Sellers' *Coasting Pilot* (c. 1675) shows Angell's lighthouse, built 1674, on a tip that now overlaps the Den. The sailing directions refer to Spurn Point, the first recorded use of this name, and North Point and South Point fall out of use. The Den to begin with had sand hills with sea-bent and bushes growing on them. Depositions of witnesses in lawsuits and references by Smeaton indicate the stages by which it became a shingle bank covered at high tide and very similar to its condition today. Its current name, Old Den, first appears on a chart of 1825.

Spurn Point continued to grow. Collin's chart of 1684 is probably the most reliable representation of this period; the 'hammer-toed' shape of Spurn may be exaggerated but probably reflects a real characteristic of this early stage and is not just a blunder. Growth went on rapidly for, by 1766, Angell's lighthouse, which was right on the tip in 1674, was a little over a mile from the point and was thus misleading. New lighthouses were therefore built by Smeaton in 1772-1776. These early lighthouses were built in pairs, with a 'low-light' to seaward of the main or high light to act as a leading mark. The fortunes of the lowlights show how the shape of Spurn was changing. Angell's low light had to be moved farther inland in 1735 and was demolished by the sea in 1763. By 1776 the site of his high lighthouse was below high water mark. Charts reveal how the 'hammer-toe' of 1684 had become by this time a sweeping curve. Smeaton's low lighthouse was washed down about 1778 and its successors, brought into use in 1816, 1830, 1831 and 1851 each nearer to the high lighthouse than the one before show how Spurn was retreating westwards as well as growing longer.

The way in which the greater exposure resulting from the north-westwards retreat of the neck was causing the neck to become lower, narrower and longer stretches of it to be more frequently covered by high tides can be gathered from Smeaton's account and from depositions of witnesses in lawsuits of this period. The head also became narrower, losing by erosion on the river side as well as on the sea side. Finally during



a north-westerly on December 28th, 1849, a breach was torn open in the neck of Spurn which grew in size until by 1851 it was 500 yards wide at highwater and 16 feet deep. This breach was still growing therefore up to the time when it was sealed and it seems very probably that, had it not been closed, it and other breaches that occurred farther north in 1851 and 1856 would have developed until the spit had suffered the fate of its predecessor.

The actual evolution of the spit during this period, therefore, agrees closely with the hypothetical evolution outlined earlier (Fig. 1). As, however, the same marine processes were at work in the same general setting before as well as during the 1610-1850 period, it seems reasonable to suggest that the predecessors of this Spurn probably evolved on broadly similar lines. We will therefore now take the 1610-1850 period as a model or analogy of what might have happened previously in order to see if this less well recorded earlier history falls into a pattern of repeating cycles of development. The 1610-1850 period also provides us with what the general hypothesis could not, namely a time scale.

This is done diagrammatically in Figure 2. Spurn and a number of its predecessors have been placed in their appropriate relative positions on the basis of an assumed mean annual retreat of the coast near Kilnsea of about $2\frac{1}{2}$ yards a year and a repeating cycle of 250 years.

With two exceptions, only the very end stages of each cycle are indicated, in fact those stages which cover the reduction of the head of the spit from quite a broad area to a narrow strip, as in 1830 and 1850 respectively, and these shapes have been used for the earlier spits because they are regarded as typical of these late stages. The two exceptions are the two shapes derived from Collins' chart of 1684 to represent conditions about 1680 and also those about 1,000 years or four cycles earlier, about 670 A.D. The names distinctive of each cycle have been put by each spit—Hrafnseyrr, Ravenser Odd, Ravenser Spurn later Spurn Head, and Spurn Point. An estimate of the successive positions of the tip throughout each cycle is made by drawing parallel lines through the known positions of the tip in the last cycle to intersect the earlier spits. This is obviously an over-simplification because, apart from the 1680 outline, it ignores the westwards movement of the spit during each cycle, but it does give some indication of what the situation might have been, and we can check by seeing how far this agrees with or makes good sense of the historical evidence.

The earliest references provide us with so little information and are so widely separated from each other in time that to consider them in relation to this cyclical pattern is hardly more than sheer speculation. Nevertheless to do so does not cause any conflict between evidence and hypothesis, indeed it suggests interesting possibilities. The first reference occurs in Alcuin's *Life of St. Willibrord*. Shortly after Willibrord's birth in 657 or 658 A.D., his father Wilgils became a monk and later retired to 'the promontories encircled by the Ocean sea and Humber river' where he founded a chapel and small community in honour of St. Andrew, of which Alcuin himself (735-804 A.D.) later became patron and legal proprietor. The description of the site implies a predecessor of Spurn; that Alcuin was concerned with the community indicates that it probably lasted until the second half of the eighth century, i.e. for at least a century; this is analogous to conditions a millenium later when Angell built his lighthouse in 1674 on a site that lasted until about 1776. Probably a site amongst sand dunes, cut off at times from the mainland by high tides would be attractive to a religious community in this, the period of greatness of Lindisfarne.

Possibly Wilgil's spit would reach the end of its cycle about 850 A.D. There is nothing further however, until we come to a reference in an Icelandic saga to an event of about 950 A.D. during the brief rule of Eric Bloodaxe in York. As Egil, the hero of Egil's Saga, and his companions were being driven in a boat by a gale south along the coast they found themselves encircled by breakers to landwards, ahead and seawards. They could not turn back against the wind so they had to land by going through the breakers to shore, wrecking their boat in the process. They found themselves at the mouth of the Humber. The conditions described are precisely those that obtain when a heavy sea is breaking on the Stony Binks.

The next references are to events of which the climax was the battle of Stamford Bridge in 1066. The Scandinavians called here before the battle, and the survivors sailed from here afterwards and the place is now named Hrafnseyrr (= Hrafn's sandbank). The meaning of the name implies a physical feature, probably the same

predecessor of Spurn that Egil landed on, and none of the references imply a settlement or haven, but instead a bare and somewhat remote spot.

There are no further references for nearly two centuries. We may speculate that Hrafnseyrr by 1066 would have developed to the vulnerable late stage of the cycle corresponding to about 1830. There were great storms and sea floods associated with spring tides on the east coast in 1099 to which the origin of the Goodwin Sands was traditionally ascribed, and this possibly was about the time that this predecessor of Spurn came to an end and was replaced by a successor.

This successor eventually became called Ravenser Odd, and there has been so much confusion about the names Ravenser, Ravenser Odd, and Ravenspurn that a word of explanation is necessary. As we have just seen, Hrafnseyrr or Ravenser was originally the name of the predecessor of Spurn that existed as a bare physical feature in 1066. By 1230 Ravenser had become the name of a village, the home of an agricultural community, and a later reference tells us that, at about that time, the spit itself was called Ravenser Odd (= the headland near Hrafn's sandbank). About 1235 however, building began on Ravenser Odd and this developed into an important port also called Ravenser Odd, or Odd juxta Ravenser, or sometimes just Ravenser. The original, rural Ravenser, began to be called Old Ravenser, though either place might be referred to simply as Ravenser. We can distinguish which is meant by whether farming or commercial or maritime activity is referred to.

Although there has been much discussion of the site of Ravenser Odd, it seems to have been on the spit itself, probably on the river side where it would have shelter from the sea, and might have been sheltered from the river by a feature similar to Old Den, perhaps a relic of Hrafnseyrr. The corresponding position on Spurn today would be a little north perhaps of the Lifeboat Inn, though the actual site was perhaps $1\frac{1}{2}$ miles to seaward of this. The *Meaux Chronicle* describes how the town was reached by a long sandy causeway with the sea on one side and the Humber on the other. If we mark the port of Ravenser Odd in this position on Figure 2, there is good agreement with the evidence of location and duration. At this period, the old English mile of 10 furlongs or a little more was in use. The *Meaux Chronicle* says that Ravenser Odd was a mile or more from the mainland and about four miles south of Easington. The site on Figure 2 is $1\frac{1}{2}$ old miles from the mainland and about $4\frac{1}{2}$ old miles south of Easington. Moreover, the port of Ravenser Odd came into existence about 1235, began to suffer from erosion in 1310 which became serious in the 30's and 40's and was destroyed about 1360. According to the diagram, the site came into existence between 1220 and 1260, erosion would become severe after 1330 and destruction would be likely between 1350 and 1360.

The new feature that began to grow, the immediate predecessor of the present Spurn, was called Ravenser Spurn, Ravenspurn, or Ravenspur, spur signifying a projecting feature. The village of Old Ravenser survived for a while the destruction of the port of Ravenser Odd but there is no evidence whatever of a town on Ravenser Spurn or of this name. The forms Ravensburgh or Ravenspurgh used by some of the chroniclers and by Shakespeare may be partly responsible for this notion. The name Ravenser Spurn is first recorded in 1395, and when Henry IV landed in 1399, he was met by an unlicensed hermit, apparently the only inhabitant. As J. R. Boyle pointed out (*The Lost Towns of the Humber*, p. 59, footnote), there appears to be no reason to link this event with the Kilnsea Cross. Reference to the place simply as Spurn occurs as early as 1423, possibly as early as 1408. The erection of the first lighthouse recorded on Spurn was in hand in 1428 by another hermit Richard Reedbarrowe, and although we know nothing of the site, the date phases almost exactly with Justinian Angell's lighthouse. A further royal landing took place in 1471, that of Edward IV. A contemporary account says he was driven ashore in a gale and had to go two miles to a poor village for shelter. The poor village probably was Kilnsea, and the reconstruction in Figure 2 makes good sense of this, for a landing place two old miles farther south would, according to the diagram, bring the king ashore near the tip, probably on the gently shelving sands inside the head, sheltered from the easterly gales which had driven him and his companions up the river. Little else is recorded of Ravenser Spurn. A commissioners' report of 1567 describes it as consisting of sandy hills covered with a few small bents and scrubby thorns, almost covered by high spring tides, and valueless. There is interesting information from maps. Saxton's county map of 1577 has the name Spurn Head for the first time, but it is on a very small scale. Two larger scale maps in the British Museum and reproduced in Sheppard's *Lost Towns of the Yorkshire Coast* (pp. 209 and 217) are particularly

valuable. They can be dated about 1540 and 1579 (not temp. Henry VIII as in Sheppard, p. 209) and, though crude, they represent Spurn in the appropriate stages of the cycle suggested here, as will be seen if they are compared, for example, with Tuke's map of Yorkshire of 1787 and the first edition of the Ordnance Survey one-inch map of 1824. A document of 1602 mentions 'the Wasting and the great Dekay of Ravinspourn' and presumably soon after 1610, destruction followed.

Thus, in conclusion, it seems reasonable to suggest that there are traces of four predecessors of the present Spurn, and rather more than traces of two of these four. Although proof may be well beyond our reach, at least this hypothesis seems to be in harmony with and to make good sense of both the physiographical and historical evidence so far available, and to indicate a number of directions for further investigation. It also warrants treatment at greater length, and it is hoped to do this in due course.

***Trocheta subviridis*—a further Yorkshire record.**—Since the recent record of Dutrochet's Land Leech in the *Naturalist* (1963, p. 29) the following find has been made at York. On June 4th, 1963, Mr. M. J. Payne brought to me a large leech which he had discovered in a greenhouse soakaway on the Rural Science Estate of St. John's College at Heworth Croft, York. This was identified as *Trocheta subviridis* and subsequent search revealed five more specimens in the soakaway. In Mann's 'Key to the British Freshwater Leeches' (*Freshwater Biological Association Scientific Publications*, No. 14 (1954)), it is stated that *T. subviridis* may be found 'in garden soil particularly yellow clay' and it is noteworthy that the soakaway drains into such a clay soil.

Mr. D. H. Adams informs me that two or three years ago workmen digging up an old field drain on the same estate uncovered a number of large leeches. These were not identified at the time, but it seems probable that these also were *T. subviridis*.

The life cycle of this interesting amphibious leech has recently been described by J. C. Hartley in *Journ. Anim. Ecol.*, **31**, 519-524 (1962).—D. C. GEDDES, Biology Department, St. John's College, York.

Lincolnshire Sphagna Additions.—Since the publication of my article on the distribution of *Sphagna* in Lincolnshire (*Nat.*, 1962, 45-49) numerous records have been added to the registers. Other than a small pocket of *Sphagnum recurvum* growing in a boggy field at Benniworth Haven, the locations coincide with previously published records. A clearer picture of the present status of this genus in Lincolnshire is apparent since records of all species, with the exception of *Sphagnum nemoreum*, are based on recent recordings.

The nomenclature and index numbers, as in the previous article, are according to Richards and Wallace (An annotated List of British Mosses, *Trans. Brit. Bryol. Soc.*, **1**, 4, Appendix i-xxxi, 1950), although these have, in many instances, been superseded. The number preceding the location corresponds with the natural history division as illustrated in my previous article. All records are substantiated by herbarium material in the Herb. Bryol. Lincolnensis at the City and County Museum, Lincoln, unless otherwise stated.

- 1/1. *S. palustre* Linn. 3, add Wrawby Moor (Seaward, July, 1963).
- 1/4. *S. papillosum* Lindb. 1, Epworth turbary (Seaward, Sept., 1962).
- 1/6. *S. compactum* DC. 10, Woodhall Spa (H. P. Reader, May, 1914)—in Herb. Bristol Univ.
- 1/9. *S. squarrosum* Pers. ex Crome. 2, add Twigmoor (Seaward, April, 1962).
- 1/13. *S. recurvum* P. Beauv. 1, add Epworth turbary (Seaward, Sept., 1962). 8, Benniworth Haven (Miss W. Heath, May, 1963).
- 1/19b. *S. subsecundum* var. *inundatum* (Russ.) C. Jens. 3, add Wrawby Moor (Seaward, June, 1963).
- 1/20. *S. fimbriatum* Wils. 3, Wrawby Moor (Seaward, June, 1963).
- 1/28. *S. plumulosum* Röhl. 2, add Twigmoor (Seaward, April, 1962); 13, Harts-holme (Seaward, August, 1963).

I would be grateful for information concerning the records for *Sphagnum rubellum* Wils. from both North (V.C. 54) and South (V.C. 53) Lincolnshire which appear in Sherrin's *Census Catalogue of British Sphagna* (1937). These records are untraceable, and hence have been bracketed in the new (1963) *Census Catalogue of British Mosses*.—MARK R. D. SEAWARD.

THE STATUS OF CERTAIN BIRDS IN THE SOUTH-WESTERN DALES OF THE NORTH YORK MOORS

P. R. EVANS

INTRODUCTION

In the summer of 1962, I was able to spend many hours in Ryedale, Riccaldale and Kirkdale, where I made accurate counts in May and June of certain species of birds which held territories there. Whenever possible, at least two visits were paid to each stretch of the dale. Although no systematic search for nests was made, I do not believe that a census based on territories alone gives appreciably less information on the habitat preferences of each species than a census based on actual nests. In most of the fieldwork I was considerably assisted by members of Ampleforth College Natural History Society in particular by S. R. Brennan, A. A. Clifton, M. Henry and C. J. Wright— and to these I extend my thanks. I am also grateful to Mr. C. D. Milne for sending me notes from Ryedale; and to Rev. M. R. Everest, Rev. R. A.

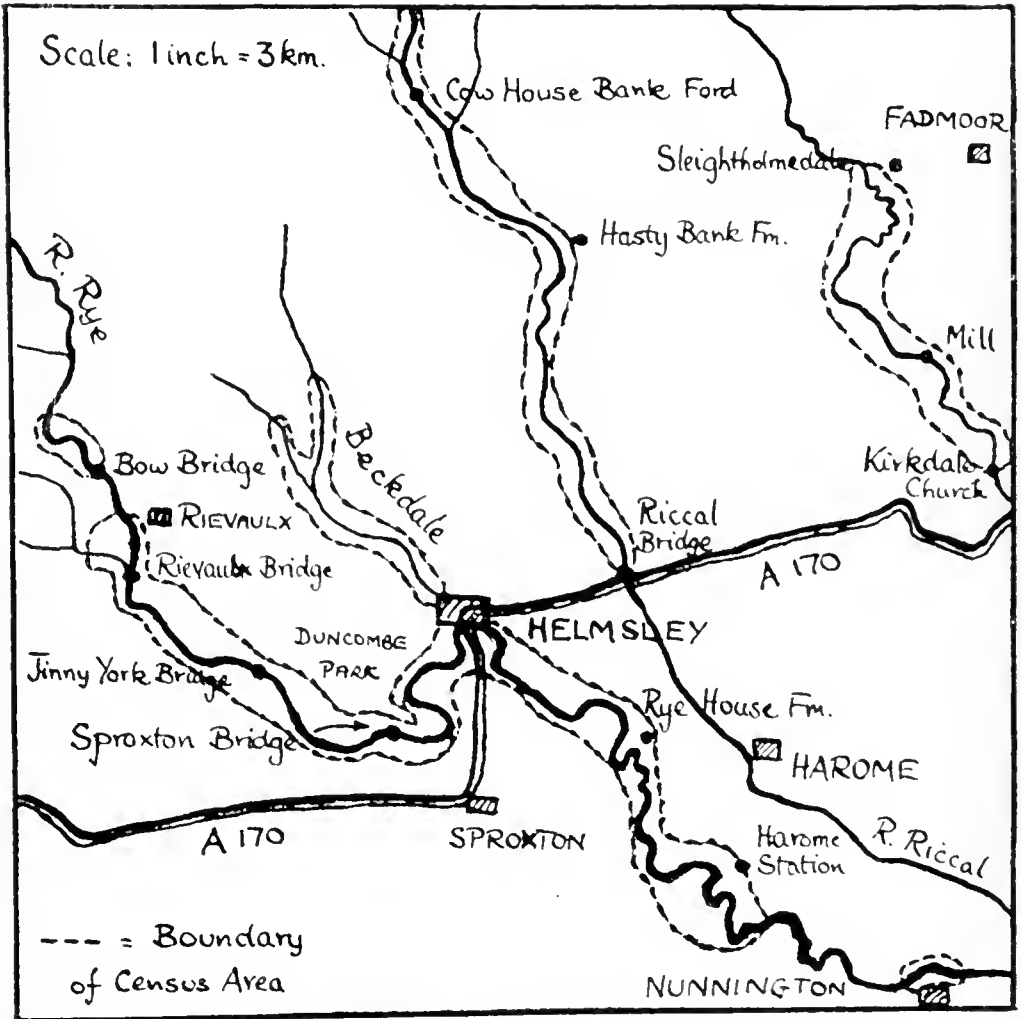


Fig. 1. Ryedale, Riccaldale & Kirkdale.

Gilman and Mr. A. F. G. Walker for reading parts of the manuscript, though I do not wish them to be held responsible for any opinions (or possible errors) which this paper contains.

There were several reasons for choosing the three dales which made up the survey area. 1. There is little detailed published work on their avifauna. 2. They are ornithologically rich in variety of species. 3. They are liable to considerable change in the next few years as ever more deciduous trees give way to the relentless advance of the conifer plantations. 4. They are reasonably close to Ampleforth, so that we were able to visit them regularly. Other dales were visited briefly in connection with the B.T.O. Pied Flycatcher survey.

THE CENSUS AREA

The boundaries of the area are shown in fig. 1. The rivers Rye, Riccal and Hodge Beck drain the south-western part of the limestone plateau known as the North York Moors. Many of the tributaries of the Rye have their sources in the Hambleton Hills, which form the high western escarpment of the Moors.

In Ryedale, the northern limit of the census area lay just south of the junction of Cadell with the Rye, near Tile House. From here to Rievaulx the river flows swiftly through a fertile plain about half a mile wide. Alder (*Alnus glutinosa*) and Wych Elm (*Ulmus glabra*) line the rocky banks, and more extensive mixed deciduous woodland lies to the east of the river. From Rievaulx to Helmsley, the Rye is contained by a steep-sided U-shaped valley, which is crossed and recrossed by the fairly shallow fast-flowing waters. One bank of the river is predominantly sandy, and adjoins grazing land; the other is a continuation of the steep valley side which is, or has been, heavily wooded. The stretch from Rievaulx to Jinny York Bridge has very few trees along either bank or valley slope, but from here to Sproxtton Bridge there is an almost continuous thin fringe of alders on one or both banks. Here also the valley sides are wooded, intermittently, with mature Oaks (*Quercus petraea*) and Beeches (*Fagus sylvatica*)—all that remains of more extensive forest. From Sproxtton Bridge to Helmsley the river banks are thickly bordered by Wych Elm and some Alder; the valley sides are also thickly wooded with mature Oak, Ash (*Fraxinus excelsior*) and Beech, and lesser numbers of Sycamore (*Acer pseudoplatanus*) and Birch (*Betula verrucosa*). Oak and Beech are dominant in different parts of the woodland. Between Helmsley and Nunnington, the Rye meanders slowly through a wide flood plain, and is only flanked by trees (mainly Alder) for a mile downstream from Helmsley, and again briefly near Rye House Farm and Harome Station. In this part of the river the banks are 3-4 feet high, and are often sandy when not tree-lined. In the bed of the river, gravel banks are numerous, but shift regularly at times of flood.

The Riccal and Hodge Beck are both much narrower rivers (and valleys) than the Rye. Just north of Eastmoors Chapel, the Riccal at the boundary of the census area is little more than a stream, flowing through a shallow rocky valley bordered by small deciduous trees, chiefly Alder, Birch and Holly (*Ilex aquifolium*). Downstream, from the ford below Cow House Bank to Hasty Bank Farm, the river is flanked by meadowland or gentle slopes covered with open woodland in which Silver Birch dominates. Southwards from Hasty Bank Farm the Riccal flows through a deep narrow valley; both slopes have been, or are being, planted with conifers by the Forestry Commission, and only a few mature deciduous trees (chiefly Alder) remain here and there along the water's edge. In 1962 the river disappeared underground into the limestone about a mile 'upstream' from Riccal Bridge; this happens each summer, except in very wet weather.

The northern boundary of the census area in Kirkdale lay at Sleightholmedale. Here the west bank of the river is thickly wooded (Skiplam Wood); the steep valley slope holds a close stand of Beech and Ash, while the edge of the high-level plateau is largely composed of stunted Oak and Birch. For at least a half mile south of Skiplam Wood, both sides of the dale are well afforested, mainly with Oak. Further downstream a major area has recently been felled, almost as far as Kirkdale Mill. From here to St. Gregory's Minster (Kirkdale Church) the river valley is rather narrow, with one bank a steep limestone cliff, and thick woodland (predominantly Oak but with some Ash) on the slopes above. Some half a mile downstream from the Mill, the river disappeared into a series of swallow holes, to emerge again just south of the church, near the Kirkdale Caves where prehistoric animal remains were found in 1821.

Also included in the survey was part of Beckdale, which runs north-west from Helmsley. This dale is thickly wooded with conifers in its higher regions, but there are large strips of open ground with extensive growth of Bramble (*Rubus fruticosus*) and Hazel (*Corylus avellana*) along the streams. In the region nearer Helmsley the beck flows through meadows bordered by thick hedges, which also give abundant low cover near the water. It will be apparent that the vegetation of Beckdale is totally different from that of the larger dales; the point will be discussed again later.

RESULTS AND DISCUSSION

Species will be dealt with in Wetmore order. The method of counting varied between species, and is usually mentioned in the text below. In general, territories

of those birds which stayed on or by the rivers were found by noting the points beyond which they would not move. Counts of singing birds were backed up by sight records whenever possible.

Pre-1962 records are taken from the Y.N.U. Ornithological Reports unless otherwise stated.

Heron—(*Ardea cinerea*)

The valleys and flood plains of the Rye, the Derwent, and their tributaries provide good feeding grounds for Herons. An old established heronry at Scampston Park, near Malton, has held about a dozen nests annually in the last ten years. Another, in Gilling Woods, also held about a dozen nests regularly up to 1928 (Nicholson, 1929), but it has since had a rather chequered history. During the war years few nests were reported, but it had recovered to its former strength by 1946. Later in the 1940's it suffered from over-enthusiastic photographers, and this may have resulted in its transfer in the early 1950's to another group of Scots Pines (*Pinus sylvestris*) in a less accessible part of the forest. Here it remained until at least 1957, but no trace was visible at the traditional site in 1962. Whether disturbance by forestry operations (e.g. bulldozing of extensive firebreaks) was in any way responsible for its disappearance, I do not know.

Several records of heronries in Ryedale have been published: a small colony near Sproxton was deserted before 1947 (Inman, 1947); a single pair nested at Harome in 1955, three pairs at Rye House Farm in 1956, four pairs in 'Ryedale' in 1957 and 1959. In 1962 there were four occupied nests in a wood near Sproxton, with full grown young on June 23rd. It seems very likely that all these records refer to the same locality.

There are no recent records of Herons nesting in Riccaldale, but a very old record was quoted by Nelson (1907). The records for Kirkdale, as for Ryedale, probably all refer to a single heronry. One pair bred in 1913; three nests were found at Fadmoor in 1953 and each year thereafter until 1959, when there were four. An apparent gap in observations in 1956 was filled by a reference to three nests at Sleightholmedale. The heronry located in 1962 was in Scots Pines on the opposite side of the valley to Sleightholmedale; it contained *circa* six pairs in May, and one nest held three well grown young on May 31st. Rumour has it that this area of woodland is to be felled before long; one can only hope that the pine trees will be spared. Whether the demise of the Gilling heronry can be related to the growth of those in Ryedale and Kirkdale is uncertain.

Oystercatcher—(*Haematopus ostralegus*)

The first bird to be recorded in Ryedale was in March, 1951; the first pair bred in 1955, and there were two pairs in 1958. In 1961, both pairs were just upstream from Harome Station (W. H. R. Pattisson, *in litt.*), but in 1962 there was only one pair in this locality, and they failed to breed successfully. Buxton (1961) has shown that north Yorkshire was colonised by birds crossing from the west, over the Pennine watershed.

Common Sandpiper—(*Tringa hypoleucos*)

The upper reaches of the Rye were counted in May, 1962. There was a pair at Rievaulx, two between Jinny York Bridge and Sproxton Bridge, and two more between Sproxton Bridge and Helmsley. In mid-June, there were nine 'pairs' between Helmsley and Harome Station; this might be an overestimate, as it is possible that some free-flying young might have been counted. The systematic count ended at the railway bridge over the Rye, with two pairs between it and Harome Station. A further pair was present at Nunnington. The length of a territory appeared to be determined by the extent of shingle exposed in different stretches of the river, though, for any detailed territory comparison, these should have been recorded in late April when the birds arrived.

In the length of Riccaldale included in the survey, only two pairs were seen—one just south of the ford at the foot of Cow House Bank, the other near Hasty Bank Farm. None were seen between Kirkdale Church and Sleightholmedale.

Kingfisher—(*Alcedo atthis*)

The status of this species on the Rye has been mentioned occasionally in the Y.N.U. Reports. Kingfishers were reported as scarce in 1947 (after the hard winter), and more numerous than for many years in 1949. In 1956, a nest site in Duncombe

Park was disturbed by tree-felling operations (C. D. Milne, *in litt.*). Since then there are few records—single birds on two occasions in 1961, and in late July, September and October, 1962. These records are probably of juveniles which have dispersed from nests in the lower reaches of the Rye and the Derwent. The species was totally absent from our census area in the early summer.

Sand Martin—(*Riparia riparia*)

In 1962 we found colonies in Ryedale of *c.* 30 holes just downstream from Rievaulx Bridge, *c.* 15 holes near Sproxton Bridge, and 100+ holes north of Rye House Farm; also several colonies of 30-40 holes near Harome Station. No Sand Martins bred in the parts of Riccaldale and Kirkdale that we visited, though suitable sites were available.

Nuthatch—(*Sitta europaea*)

The Helmsley area and Ryedale have long been famous (in ornithological circles!) for their Nuthatches (see e.g. Nelson, 1907). In Duncombe Park, 8-10 pairs bred in the mid-1940's (Inman, 1947), and 5 or 6 in 1949. The 1962 survey is not strictly comparable with these estimates, as it covered only the valley sides, and not the whole area of woodland. We found one pair half a mile upstream from Helmsley, two more near Sproxton Bridge and a fourth near Jinny York Bridge. I can find no published record for Riccaldale, unless this area is covered by 'dales north of Helmsley' where Nuthatches were 'well established' in 1945. At least one pair bred in 1962, as two recently-fledged juveniles were seen below Cow House Bank. We did not record the species from Kirkdale, but the date of our visits came after the main song-period had ended, so we might easily have overlooked them. Nuthatches have been recorded there in former years; the last published record was in 1955.

Dipper—(*Cinclus cinclus*)

In 1962, we had several records from Ryedale, but failed to get an accurate picture of Dipper territories along the river. An adult was seen just upstream from Bow Bridge, north-west of Rievaulx, in June. A pair which had established itself on the stretch of river including Jinny York Bridge (a traditional nest-site) in March, was not seen again, but two young were seen on the wing, with an adult, at Helmsley in early June. No Dippers were recorded between Helmsley and Nunnington, where a pair nested successfully under the footbridge. In Riccaldale, an adult and three juveniles were seen upstream from the ford at the foot of Cow House Bank, and Kirkdale held one adult on the stretch of river below Skiplam Wood.

Warblers—(excluding Wood Warbler)

The thick mature tree canopies which flank part of the valley sides of Ryedale, Riccaldale and Kirkdale allow little or no undergrowth to develop; other stretches of the rivers are flanked by open meadowland or hillsides cleared for reforestation. The lack of low cover in all these sites tends to discourage the *non*-ground-nesting warblers from taking up territories. This helps to explain the virtual absence of Blackcaps (*Sylvia atricapilla*), Garden Warblers (*Sylvia borin*), Common (*Sylvia communis*) and Lesser Whitethroats (*Sylvia curruca*), and Chiffchaffs (*Phylloscopus collybita*) from the major valleys.

In early June 1962, we followed Elton Gill, a tributary of the Rye, for two miles north from Helmsley. A count of singing warblers in this small area of Beckdale gave a total of six Blackcaps, three Garden Warblers, at least six Common Whitethroats and one Lesser Whitethroat. By contrast, in the rest of our survey area, we saw or heard only two Blackcaps (Rievaulx Abbey and Riccal Bridge), one Garden Warbler (Rievaulx Bridge), and a few Whitethroats, singing from areas of very young conifers. Chiffchaffs were heard at Riccal Bridge and Hasty Bank Farm in Riccaldale; also in Duncombe Park (C. D. Milne, *in litt.*), where they are infrequent. A single Grasshopper Warbler (*Locustella naevia*) was heard in a young conifer plantation at Spring Bank Wood in Duncombe Park.

Wood Warbler—(*Phylloscopus sibilatrix*)

Counts were made of singing birds in the months of May and June. The resulting distribution of Wood Warblers in the census area is shown in fig. 2, which also illustrates the preference of this species to nest in groups (Svardson, 1949). Chislett (1952) has described the preferred Yorkshire habitat as deciduous woods on steeply

sloping ground. This description fits almost perfectly the distribution of territories that we found in our survey, including their absence from Riccaldale, where there is little deciduous woodland. The exception was a bird heard on June 21st in a predominantly coniferous, almost level, plantation south of Sproxton, but we have no evidence that this bird nested. The preference for hanging woodland could have its explanation in the lack of undergrowth in the woods we examined, for there would have been little cover for nests on flat ground, whereas on the steep rough hillsides there were many possible sites. In view of Yapp's (1962) comment that

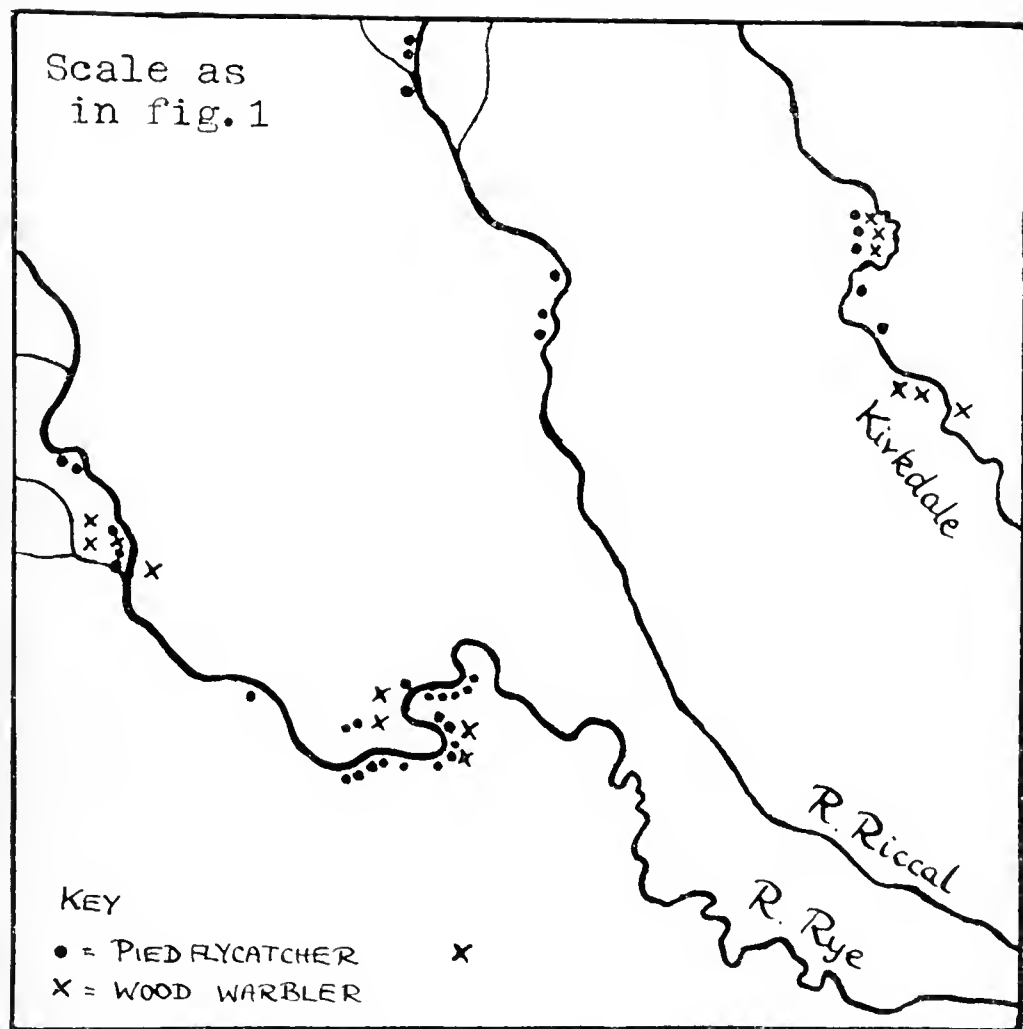


Fig. 2. Wood Warbler and Pied Flycatcher distribution in the survey area.

beechwoods are not a characteristic habitat for this species, it seems worth mention that three Wood Warblers that we saw as well as heard in Duncombe Park were all feeding in the canopy of beech trees, though these were by no means the only dominant species in the wood.

Pied Flycatcher—(*Ficedula hypoleuca*)

The 1962 distribution of Pied Flycatchers is also shown in fig. 2. Campbell (1955) has argued that the availability of nest sites is important in determining the distribution of this species in Britain. It will be noticed that in Ryedale the Pied Flycatchers occupy territories much closer to the river than do the Wood Warblers, whereas in the higher regions of Kirkdale the reverse is true. This illustrates Campbell's hypothesis, for in Ryedale most Pied Flycatcher territories centre on old riverside trees, such as alder and wych elm, which contain many possible nest holes; three nests found were all in wych elm. The upper reaches of the Riccal are also fringed by alder. However, in Kirkdale, there are many more suitable nest

sites in the very old stunted oaks and birches on the level plateau of Skiplam Wood than in the better timber growing on the steep hillsides, for there are but few decaying trees along the river banks. Yapp has drawn attention to the simultaneous occurrence of both Wood Warblers and Pied Flycatchers in many areas. He has attempted to express the degree of association of the two species in mathematical terms (1962, p. 21) as a correlation coefficient of 1.62, which, he argues, is probably large enough to indicate an attraction of one species for the other, or, more probably, similar requirements. While I agree that, throughout Britain as a whole, Wood Warblers can usually be found wherever there are Pied Flycatchers, the reverse is certainly not true. The correlation coefficient seems, therefore, to be of very limited value in any attempt to understand the distribution and habitat preferences of the two species.

Grey Wagtail—(*Motacilla cinerea*)

In 1962 we found Grey Wagtails on the Rye just upstream from Helmsley (pair with three young), at Sproxton Bridge (where six young were successfully reared) and at Rievaulx. A note on nest sites of this species in Ryedale appeared last year (Harmer, 1962), but unfortunately no indication was given of the exact localities of the nests, nor of the length of river watched. Riccaldale held one pair, a mile upstream from Riccal Bridge. We found one pair near Kirkdale Mill, and also saw a hen further downstream, almost at the point where the water disappeared underground.

Other species which occurred in the census area, but which were too numerous to be counted exactly with any degree of success, included Redstart, Willow Warbler, Spotted Flycatcher and Tree Pipit. No attempt was made to assess the populations of tits and finches, as their habitat requirements were in no way limited by the boundaries of our census area.

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The Birds of Monmouthshire, by **G. C. S. Ingram** and **H. M. Salmon** revised by **P. N. Humphreys**. Pp. 56, $8\frac{1}{2} \times 5\frac{1}{2}$ including title page, index, etc. Newport Museum, 1963. 2/6.

This was first issued in 1939 and has now been revised by Humphreys with the aid of Ingram and Salmon and of many others. Altogether 213 species are included—and six doubtful occurrences—in a table comparing the different categories with the figures for the adjoining counties of Glamorgan (253), Breconshire (211), and Herefordshire (225). The introduction, with map showing the rivers, deals with increases and decreases, migration (not very adequately), topography, and conservation (bird mortality due to irresponsible shooting by youths has increased). The arrangement is in Wetmore order. Eighteen selected ringed birds recovered in the county are tabulated. There appears to have been no ringing done in Monmouthshire. The bibliography is followed by an unusual page—‘some useful addresses’. An excellent summary which will be useful to any who go to Monmouthshire and to students of distribution.

R.C.

THE FUNGI OF ILKLEY MOOR

PAULINE WALKER AND FREDA DRAPER

As part of the Wharfedale Naturalists' Society's Survey of Ilkley Moor, the fungi were studied and some 100 species were recorded during a period of about eighteen months, including the very wet summer and autumn of 1960, when weather conditions were very favourable for the growth of fungi. Although few of them were seen in 1961, most of the species reappeared in the autumn of 1962 and several additions were made to the list.

The slopes of the Moor face north and are chiefly covered by large areas of crowberry and bracken, broken by the rather steep ravines formed by the main streams. Heather and cottongrass are on the higher plateaux, with close-cropped turf at the foot of the ravines and along the roadside. Cow Close is the only wooded ravine and the seven plantations are all at the Ilkley end of the moor. Apart from a very few scattered hawthorns and mountain ash, Burley Moor is devoid of trees. Most of the fungi associated with trees were, therefore, found at the Ilkley end, particularly in Cow Close ravine. The contrast between the two ravines on Burley Moor was very interesting. Coldstone, from which so many of the flowering plants were recorded was rather poor in fungi, whereas Rushy ravine, so very limited in flowering plants, was much richer in its fungus flora and had many species that were recorded nowhere else on the moor.

In the following account the species have been grouped in their most typical habitats and form seven main groups. Some overlapping cannot be avoided as several species occur in different habitats.

1. In bogs and marshy ground and among *Sphagnum*.
2. On debris formed by crowberry, bilberry, heather and bracken.
3. In turf; dry turf and edges of footpaths and damp, mossy turf by streams and flushes.
4. On burnt areas.
5. On sheep dung and highly manured ground.
6. On wood: living and dead trees and stumps.
7. In association with trees in Cow Close ravine and the plantations.

In bogs:

Small bogs are scattered over the lower slopes of the moor and at the sides of the streams with extensive marshy areas higher up by the reservoirs.

Some of the species were very common in all marshy places, particularly *Hypholoma elongatum* and *Omphalia ericetorum* and some of the *Galerinas*, but *Leptoglossum lobatum*, a member of the Cantharellaceae, was found only in a small bog by Crawshaw Moss. A bright orange-red species of *Hygrophorus*, identified by Kew as 'near *H. turundus*,' occurred in large numbers in a *Sphagnum* bog at Weary Hill and in a few places on Burley Moor. A more accurate naming of this little fungus should now be possible.

Leptoglossum lobatum ((Pers.) Fr.) Ricken

On mosses in bog below Crawshaw Moss; Aug., 1960.

**Hygrophorus turundus* (Fr. ex Fr.) Fr.

Large numbers in Weary Hill bog in *Sphagnum*: Oct., 1959. Weary Hill bog; Aug., 1960. Coldstone and Rushy ravines; 1960.

Mycena epipterygia (Scop. ex Fr.) S. F. Gray (det. Kew)

Near Tarn in damp grass and moss: Oct., 1959. Cow Close, Spicely Gill and near Panorama Reservoir; 1960.

M. fibula (Bull. ex Fr.) Kühn.

Damp, mossy ground, Coldstone ravine; Sept., 1960.

Omphalia ericetorum (Fr. ex Fr.) M. Lange (det. Kew)

Damp mossy ground and in *Sphagnum*, Woodhead, Spicely Gill, Cow Close and near White Wells; Oct., 1959 and May-Sept., 1960.

Nolanea staurospora Bres. (det. Kew)

Widespread in mossy turf near tracks and paths, and in bogs, Rushy Beck, Cow Close, Keighley Gate, Carr Bottom, Hangingstones, near Tarn; Oct., 1959, May-Nov., 1960.

Cortinarius sp. in subgenus *Hydrocybe*. (det. Kew)

In *Sphagnum*, among pines, Cow Close; Sept., 1960.

†*Galerina clavata* (Vel.) Kühn. (det. Kew)

In turf by spring, Rushy Beck; Nov., 1959.

- G. hypnorum* (Schränk. ex Fr.) Kühn. (det. Kew)
Among moss in Rushy, Coldstone and Cow Close ravines, Spicey Gill; Nov., 1959 and Sept.-Nov., 1960.
- G. mycenopsis* (Fr. ex Fr.) Kühn. (det. Kew)
Spicey Gill, in *Sphagnum*; Oct., 1959.
- G. paludosa* (Fr.) Kühn. (det. Kew)
In *Sphagnum* near Spicey and Coldstone becks, and in bog below White Wells; May-Sept., 1960.
- G. unicolor* (Vahl. ex. Sommerf.) Sing.
In turf by spring, Rushy beck; Nov., 1959.
- **Pholiota myosotis* (Fr. ex Fr.) Sing.
Woodhead, near Tarn, Rushy and Spicey becks; Oct., 1959-60.
- Hypholoma elongatum* (Pers. ex Fr.) Ricken (det. Kew)
Very common on moor in damp mossy places and bogs, Rushy, Coldstone and Cow Close ravines, near Tarn, Hangingstones, etc.; Oct., 1959, May-Nov., 1960.
- Geoglossum nigratum* Cooke (det. Kew)
Mossy turf near Rushy ravine, and among mosses in Lanshaw bog; Oct., 1960.

On debris.

The crowberry forms a considerable amount of debris and here *Mycena vitilis* was particularly common, varying in colour from almost white to dark brown. Several other *Mycenas* and *Macrocystidia cucumis* were frequent, with *Marasmius androsaceus* on drier crowberry and bilberry debris. Among the thick deposit formed by the bracken were troops of *Collybia maculata* and *Clitocybe vibecina*. In one place by Rushy ravine the latter had an unusual and very beautiful poroid formation of the gills, so that each fungus appeared to have a treble row of milky-white frills surrounding the cap. Where the bracken grew under trees the stinkthorn, *Phallus impudicus*, occurred.

- Clitocybe vibecina* (Fr.) Quél. (det. W.A.S.)
Rushy ravine, Nov., 1959, with unusual poroid formation of the gills. Rushy, Coldstone and near Carr Bottom, 1960, very numerous, growing in troops among bracken.
- Collybia maculata* (Alb. & Schw. ex Fr.) Kummer (det. Kew)
Widespread among bracken, Coldstone, Rushy and Cow Close, near Tarn, near Panorama reservoir; Sept.-Oct., 1959-60.
- Macrocystidia cucumis* (Pers. ex Fr.) Heim (det. Kew)
On fibrous debris, Rushy ravine; Nov., 1959. Near Carr Bottom; Oct., 1960.
- Mycena galopus* (Pers. ex Fr.) Kummer (det. Kew)
Rushy, Coldstone and Spicey becks, Woodhead, Carr Bottom; Oct., 1959, Sept.-Nov., 1960.
- M. sanguinolenta* (Alb. & Schw. ex Fr.) Kummer
On crowberry debris, Coldstone and Carr Bottom; Sept.-Oct., 1960.
- M. leucogala* (Cooke) Sacc.
On debris, by paths and on burnt areas, Hangingstones, Coldstone and Rushy ravines; Sept.-Nov., 1960.
- M. vitilis* (Fr.) Quél. (det. Kew)
On crowberry debris, Rushy ravine; Nov., 1959. Rushy, Spicey Gill and Carr Bottom; Aug.-Nov., 1960.
- Marasmius androsaceus* (L. ex Fr.) Fr.
On debris of crowberry, heather and bilberry, Coldstone ravine; Oct., 1960.
- Gymnopus penetrans* (Fr. ex Fr.) Murr. (det. Kew)
On bilberry debris and on burnt areas, Coldstone, Rushy and Cow Close ravines, Crawshaw Moss and near Tarn; Sept., 1960.
- **Conocybe rickeniana* Sing. ex P. D. Orton
On fibrous debris, Rushy beck; Nov., 1959.
- Phallus impudicus* (Linn.) Pers.
In bracken, edge of moor by Cow Close; Nov., 1960.
- Cordyceps militaris* (L. ex St. Amans) Link
Parasitic on pupating larva, among peaty debris near Rushy ravine; Nov., 1962.

In turf.

This is the largest section and includes common species which occurred in large numbers, when the weather was favourable, from early summer to late autumn. Two

spring fungi were *Tricholoma gambosum* (St. George's mushroom) and *Entoloma clypeatum*. *Agaricus campestris* (Field mushroom) appeared in the roadside turf in summer. Several of the species listed for the bogs also grow in damp turf, particularly *Mycena epipterygia*, *M. fibula* and *Nolanea staurospora*.

Some of the most colourful species are in this section, *Hygrophori* in crimson, white and yellow, together with the variegated *H. psittacinus* (the Parrot). The most interesting area was a short stretch at the foot of Rushy ravine where a few yards of mossy turf were studded with an assortment of small grassland species. The fragile yellow and white *Clavaria inaequalis* and *C. vermicularis*, sometimes known as 'fairy clubs,' contrasted with the black clubs of several species of *Geoglossum*. In 1962, *Clavaria luteoalba*, with apricot-yellow, white-tipped fingers, was abundant here. A search for these species in similar situations in other parts of the moor was unsuccessful, except in the case of *Geoglossum nigrum*, which was found in one of the Lanshaw bogs at 1,000 feet. A few species, such as *Agaricus silvaticus* (Brown Wood Mushroom), more usually associated with woodlands, were found here although there are now no trees anywhere in the area.

The last species to be added to the moorland list was found here in November, 1962. This was the entomogenous fungus, *Cordyceps militaris*. A single, orange-red club appeared in peaty debris, parasitic on the pupating larva of a noctuid moth, probably *Triphaena pronuba* (Large Yellow Underwing), a very common species in this area, many larvae of which had already produced *C. militaris* in a pasture just below the moor.

Hygrophorus ceraceus (Wolf. ex Fr.) Fr.

In short grass, edge of moor, Ilkley; Aug., 1960. Rushy ravine; Oct., 1962.

H. coccineus (Schaeff. ex Fr.) Fr.

In turf near White Wells; Coldstone ravine; Sept., 1960.

H. laetus (Pers. ex Fr.) Fr.

In mossy turf, Cow Close, Rushy Beck, Spicey beck; Sept., 1960.

**H. nigrescens* (Quél.) Quél.

In short turf, Woodhead, Keighley Gate; Aug., 1960.

H. niveus (Scop.) Fr. (det. Kew)

Short turf Rushy beck, Coldstone beck, Keighley Gate, near Panorama reservoir; Nov., 1959, Sept.-Oct., 1960.

H. pratensis (Pers. ex Fr.) Fr. (Buff Cap)

Short turf Keighley Gate, near White Wells, near Rushy beck; Sept., 1960.

H. psittacinus (Schaeff. ex Fr.) Fr. (The Parrot)

Short turf, Burley Moor, Rushy ravine; Sept.-Nov., 1960.

†*H. subradiatus* (Schum. ex Secr.) Fr.

In turf near Keighley Gate road and Woodhead; Sept., 1960.

Tricholoma gambosum (Fr.) Kumm. (St. George's Mushroom.)

In turf by Paddling Pool, April, Coldstone ravine; May 1961.

**Lyophyllum decastes* (Fr. ex Fr.) Sing.

In turf by roadside near Rushy ravine, Oct., 1962.

Hygrophoropsis aurantiaca ((Von Wulfen) Fr.) Maire

Very common on all parts of the moor in turf; 1959. Less plentiful but in most parts; Aug.-Oct., 1960.

**Mycena acetes* (Fr.) Quél. (det. Kew)

Rushy ravine, Cow Close, near Tarn; Sept.-Oct., 1959-60.

M. epipterygia (Scop. ex Fr.) S. F. Gray (det. Kew)

Near Tarn in damp grass and moss; Oct., 1959. Cow Close, Spicey gill and near Panorama reservoir, 1960.

M. fibula (Bull. ex Fr.) Kühn.

Damp mossy ground, Coldstone ravine; Sept., 1960.

M. galopus (Pers. ex Fr.) Kummer (det. Kew)

Rushy, Coldstone and Spicey becks, Woodhead, Carr Bottom; Oct., 1959, Sept.-Nov., 1960.

M. swartzii (Fr. ex Fr.) A. H. Smith

Mossy turf near Rushy beck; Oct., 1960.

Entoloma clypeatum (L. ex Fr.) Kummer (det. Kew)

Short turf, edge of moor; May, 1960.

Nolanea sericea (Bull. ex Merat) P. D. Orton

In turf near Panorama reservoir; Oct., 1960.

- Nolanea stauropora* Bres. (det. Kew)
Widespread in mossy turf near tracks and paths and in bogs, Rushy beck, Cow Close, Keighley Gate, Carr Bottom, Hangingstones, near Tarn; Oct., 1959, May-Nov., 1960.
- Tubaria furfuracea* (Pers. ex Fr.) Gill.
Short turf near path, Panorama reservoir; Oct., 1960.
- †*Galerina clavata* (Vel.) Kühn. (det. Kew)
In turf by spring, Rushy beck; Nov., 1959.
- G. unicolor* (Vahl. ex Sommerf.) Sing.
In turf by spring, Rushy beck; Nov., 1959.
- **Pholiota myosotis* (Fr. ex Fr.) Sing.
Woodhead, near Tarn, Rushy and Spicey becks; Oct., 1959-60.
- Inocybe obscura* (Pers. ex Pers.) Gill. (det. Kew)
In turf lower end Cow Close ravine; Aug., 1960.
- Conocybe tenera* (Schaeff. ex Fr.) Kühn.
Short turf, Rushy beck, Keighley Gate; Oct., 1959, Aug., 1960.
- Agrocybe semiorbicularis* (Bull. ex St. Amans) Fayod
Keighley Gate and along track to Weary Hill quarry and near Heber's Ghyll; Oct., 1959. Sept.-Oct., 1960.
- Stropharia aeruginosa* (Curt. ex Fr.) Qué. (Verdigris agaric)
In turf near Rushy ravine; Nov., 1959.
- Hypholoma subericaceum* (Fr.) Kühn. (det. Kew)
Short turf, Burley Moor; Nov., 1959. Oct., 1960.
- Psilocybe semilanceata* (Fr. ex Secr.) Kumm. (Liberty Cap)
Burley Moor, Cow Close, Spicey beck; July-Sept., 1960.
- P. semilanceata var caeruleascens* (Cooke) Sacc. (det. Kew)
Woodhead and near Tarn; Oct., 1959.
- Agaricus campestris* (L. ex Fr.) (Field Mushroom)
In turf by roadside, Woodhead and Ilkley; July, 1960.
- A. silvaticus* Schaeff. ex Seer. (Brown Wood Mushroom)
On bank near Rushy ravine; Oct., 1959.
- Lepiota cristata* (Fr.) Kummer. (Crested Parasol)
Lower end of Cow Close in turf; July-Aug., 1960.
- Clavaria inaequalis* Fr.
In short turf lower end of Rushy ravine; Sept.-Oct., 1960.
- C. vermicularis* Fr.
Mossy turf roadside near Rushy ravine; Oct., 1960.
- C. cinerea* (Bull.) Fr. (det. Kew)
Mossy turf roadside near Rushy ravine; Oct., 1962.
- C. corniculata* Fr.
Mossy turf, roadside, Rushy ravine; Oct., 1960.
- C. corniculata var pratensis* (Cott. & Wakef.) (det. Kew)
Mossy turf, roadside, Rushy ravine; Oct., 1960.
- C. cristata* (Holmsk.) Fr. (det. Kew)
In turf under bracken, Rushy ravine; Oct., 1962.
- C. luteoalba* Rea (det. Kew)
Mossy turf, roadside, near Rushy ravine; Oct., 1960.
- Lycoperdon perlatum* Pers. (Common puffball)
Short turf on bank, Coldstone ravine and near Hangingstones; Sept., 1960.
- Trichoglossum hirsutum* (Pers. ex Fr.) Boud. (det. Kew)
Mossy turf, roadside, near Rushy ravine; Oct., 1960.
- †*Geoglossum nigrum* Cooke (det. Kew)
Mossy turf, near Rushy ravine and among mosses in Lanshaw bog; Oct., 1960.
- †*G. fallax* Durand (det. Kew)
Mossy turf, roadside, Rushy beck; Oct., 1960.
- **G. glutinosum* Pers. ex Fr. (det. Kew)
Mossy turf, roadside, near Rushy ravine; Oct., 1960.
- G. cookeianum* Nannf. (det. Kew)
Mossy turf, near Rushy ravine; Oct., 1960.

On the burnt areas.

In the dry summer of 1959 there were exceptional numbers of moorland fires and extensive blackened areas were left. The first colonist on these areas was often

a small cup-fungus, *Anthracobia melaloma*, which appeared in large numbers at the beginning of 1960 and survived considerable frost. It reappeared in the autumn of that year in a few places but in the subsequent wetter summers with fewer fires this species has not been recorded.

Mycena leucogala (Cooke) Sacc.

On debris, by paths and on burnt areas, Hangingstones, Coldstone and Rushy ravines; Sept.-Nov., 1960.

Gymnopilus penetrans (Fr. ex Fr.) Murr. (det. Kew)

On bilberry debris and on burnt areas, Coldstone, Rushy and Cow Close ravines, Crawshaw Moss and near Tarn; Sept., 1960.

Pholiota carbonaria (Fr. ex Fr.) Sing.

On and near burnt areas; August, 1960.

**Anthracobia melaloma* (A. & S.) Boud. (det. Kew)

First colonist, in large numbers, of bare peat after burning; found in Feb., 1960, disappearing in the spring and reappearing Aug.-Oct., 1960.

On dung.

A considerable number of sheep are pastured on Ilkley moor and several of the fungi associated with dung and highly manured ground are frequent on the tracks and in grassy areas. *Stropharia semiglobata* is very common throughout the summer and autumn and three species of *Panaeolus* occur, including *P. sphinctrinus*.

**Bolbitis vitellinus* (Pers. ex Fr.) Fr.

On dung at foot of moor; July, 1960.

Stropharia semiglobata (Batsch ex Fr.) Quél.

Widespread and common on dung, Burley moor, Rushy beck; near Heber's Ghyll; Nov., 1959 and July-Nov., 1960.

Panaeolus campanulatus (Bull. ex Fr.) Quél.

On dung, Coldstone and Rushy ravines, Hangingstones and near Panorama reservoir; Sept.-Nov., 1960.

P. papilionaceus (Bull. ex Fr.) Quél.

Spicey gill; Oct., 1959. Rushy ravine; Sept., 1960.

P. sphinctrinus (Fr.) Quél. (det. Kew)

In grass by spring, Rushy ravine; Nov., 1959 and July 1960.

On wood.

There are comparatively few trees on the moor and the species in this group are confined to the plantations and Cow Close ravine and a few scattered stumps along the edge of the moor. More dead wood was caused by the gales of 1956 and 1962 which did considerable damage in the plantations. The trees are mostly pine and larch with a few hardwoods. *Polyporus betulinus* (Birch Bracket) was common on both living and dead silver birches and *Calocera viscosa* (Beautiful Horn) on logs, roots and stumps of conifers. *Ganoderma applanatum* was found on a hardwood log and several of the more common lignicolous fungi occurred wherever there was dead wood. A much less common species, *Ptychogaster albus*, grew at the foot of a pine stump, spreading over the ground and encrusting bracken stems.

Armillaria mellea (Vahl. ex Fr.) Kummer (Honey fungus)

Near Keighley Gate on dead elder, Coldstone ravine probably on roots; Sept., 1960.

Flammulina velutipes (Curt. ex Fr.) Karst. (Winter fungus)

On dead wood in Cow Close; Dec., 1960.

Mycena galericulata (Scop. ex Fr.) S. F. Gray

On old stump near Rushy ravine; Oct., 1962.

Pholiota squarrosa (Muller ex Fr.) Kummer (Scaly cap)

On old stump near Keighley Gate road; Sept., 1960.

Coprinus micaceus (Bull. ex Fr.) Fr. (Glittering Toadstool)

On grassy bank, Coldstone (on buried wood); Sept., 1960.

Pluteus cervinus (Schaeff. ex Fr.) Kummer

On old stump lower end of Cow Close; Oct., 1959.

Polyporus betulinus (Bull.) Fr. (Birch Bracket)

Parasitic on birch, Cow Close ravine and plantations; Oct., 1959 and Aug.-Nov., 1960.

Ganoderma applanatum (Pers.) Pat.

On old stump, lower end Cow Close; Oct., 1959 and Aug., 1960.

Polystictus versicolor (Linn.) Fr.

Cow Close ravine on dead wood, and near Keighley Gate road on stump; Sept., 1960.

†*Ptychogaster albus* Corda (det. Kew)

Cow Close ravine at foot of dead pine stump and encrusting bracken stems; July-Sept., 1960.

Stereum rugosum (Pers.) Fr.

On stumps near White Wells; Sept.-Nov., 1960.

Dacryomyces deliquescens (Bull.) Duby

On old wood foot of Rushy ravine; Oct., 1962.

Calocera cornea (Batsch) Fr.

On dead wood, Hangingstones plantations; Oct., 1959.

C. viscosa (Pers.) Fr. (Beautiful Horn)

On pine stump, Cow Close ravine and plantations; Aug.-Oct., 1960.

Xylaria hypoxylon Grev. (Candle-snuff fungus)

On old stump foot of Rushy ravine; Oct., 1962.

With trees.

This section includes some of the larger toadstools, *Boleti*, *Russulas* and *Amanitas*, and most of them were recorded from Cow Close ravine, which has Scots and Austrian pines, larches and silver birch. Several of the fungi were definitely associated with certain trees. *Boletus elegans* (Elegant Boletus) always grew under larches, *B. luteus* (Butter Boletus) beneath pines and the rough stalked *B. scaber* and orange-capped *B. testaceosaber* under birches. Also under birches was *Lactarius turpis*. Beneath conifers in the plantations was *L. rufus* with large numbers of *Paxillus involutus*, *Tricholomopsis rutilans* and *Hygrophorus hypothejus* growing under pines and *Cystoderma amianthinum* among pine needles in one of the plantations. Very large specimens of *Amanita rubescens* (The Blusher) appeared on a bare clay bank in Cow Close ravine under the pines, and the cup-fungus *Peziza badia* in damp sand and shingle.

Boletus chrysenteron Bull. ex St. Amans (Red Cracked cap)

Cow close ravine; July and Aug., 1960.

B. elegans Schum. ex Fr. (Elegant Boletus)

Cow Close ravine, associated with larch; July 1960.

B. luteus L. ex Fr. (Butter Boletus)

Cow Close ravine under pines; Oct., 1959.

B. scaber (Bull. ex Fr.) (Rough-stemmed Boletus)

Cow Close ravine among bracken and bilberry, associated with birch; July-Sept., 1960.

B. subtomentosus L. ex Fr. (Felt Boletus)

In turf among pines Hangingstones plantation; Oct., 1959. Cow Close ravine; Sept., 1960.

B. testaceosaber Secr. (Orange cap Boletus)

Cow Close ravine among bracken and bilberry associated with birch; Aug.-Sept., 1960.

Paxillus involutus (Batsch ex Fr.) Fr.

In turf among pines, Hangingstones plantation; Cow Close, above Heber's Ghyll; Oct., 1959, July-Sept., 1960.

Hygrophorus hypothejus (Fr. ex Fr.) Fr. (det. Kew)

Cow Close ravine, under pines; Nov., 1960.

Tricholoma terreum (Schaeff. ex Fr.) Kumm. (Earthy fungus)

Under pines at foot of Cow Close; Nov.-Dec., 1960.

Tricholomopsis rutilans (Schraeff. ex Fr.) Sing.

Cow Close ravine under pines; Aug., 1960.

Laccaria laccata (Scop. ex Fr.) Cooke

Cow Close ravine and near Tarn; Oct., 1959 and July-Sept., 1960.

Cystoderma amianthinum ((Scop.) Fr.) Fayod (det. Kew)

In turf near Rushy beck and Carr Bottom and among pine needles, Hangingstones plantation; Oct., 1960.

Amanita rubescens ((Pers.) Fr.) S. F. Gray (The Blusher)

Numerous, Cow Close ravine under pines; July, 1960.

A. vaginata (Bull. ex Fr.) Vitt. (Grisette)

A few under trees, Cow Close ravine; Sept., 1960.

- Russula fragilis* (Pers. ex Fr.) Fr.
Damp places in Cow Close ravine; Oct., 1959.
- R. heterophylla* (Fr.) Fr.
Grassy slope under trees, Cow Close; Aug., 1960.
- R. lutea* (Huds. ex Fr.) S. F. Gray
In grass among trees, Cow Close ravine; Aug., 1960.
- R. ochroleuca* (Pers. ex Secr.) Fr.
Under pines in Cow Close ravine and Hangingstones plantation; Aug., 1960.
- R. puellaris* Fr.
Cow Close ravine near water's edge and among bracken above Heber's Ghyll; July-Sept., 1960.
- R. rubra* ((Lamb.) Fr.) Fr. (Red Russule)
Grassy slope under trees, Cow Close; Aug., 1960.
- Lactarius glyciosmus* (Fr. ex Fr.) Fr.
Damp, mossy ground in Cow Close ravine and above Heber's Ghyll; Sept., 1960.
- * *L. helvus* (Fr.) Fr.
Mossy ground in plantation; Aug., 1960.
- L. rufus* (Scop. ex Fr.) Fr.
Hangingstones plantation and Cow Close ravine under pines and larches; Sept., 1960.
- L. turpis* (Weinm.) Fr. (Base toadstool)
Cow Close ravine and moor above Heber's Ghyll growing with birches; Oct., 1959 and Sept., 1960.
- Peziza badia* Pers. ex Fr. (det. Kew)
Damp sand and shingle and on bare banks, Cow Close ravine; Oct., 1959, July-Sept., 1960.
- Phallus impudicus* (Linn.) Pers. (Stinkhorn)
In bracken, edge of moor, Cow Close; Nov., 1960.

† Not in Mason and Grainger's *Catalogue of Yorkshire Fungi*.

* Not in Mason and Grainger's *Catalogue of Yorkshire Fungi* for V.C. 64.

Nomenclature is from the *New Check List of British Agarics and Boleti*, Supplement to *Trans. Brit. Mycol. Soc.*, June, 1960 (Cambridge University Press), and for other Basidiomycetes, from Carleton Rea's *British Basidiomycetae* (1922). Discomycetes were named by Kew. English names are from E. M. Wakefield's *Observers' Book of Common Fungi* (Warne, 1954) and Step's *Toadstools and Mushrooms of the Countryside* (1913).

Collins Guide to Mushrooms and Toadstools, by Morten Lange and F. B. Hora. Pp. 258 with 96 colour plates and 12 figures. Collins 1963. 30s.

Good colour plates are an indispensable aid to the identification of agarics and the coloured illustrations in Jakob E. Lange's invaluable—and now prohibitively costly—*Flora Agaricina Danica*, are amongst the finest which have been published. Later the two Langes, father and son, issued a more popular illustrated guide to Danish fungi which included selected examples of the larger species from other groups of Basidiomycetes and Ascomycetes as well as agarics. The text of the present work has been adapted from this. The 377 species of agarics illustrated are all reproductions from Jakob Lange's famous book; the other 200 species are reproduced from paintings made for the later work.

Descriptions are brief with distinguishing characters italicised and with information as to habitat, duration and frequency; and—most welcome feature—descriptions and illustrations are so arranged that they consistently stand on opposite pages throughout the book. Nomenclature has been revised throughout so that names agree with recent revisions and check-lists. Keys to the genera are also provided. For those wishing to pursue identifications at a more advanced level there is a supplementary section dealing with microscopic characters and chemical aids to field recognition; spore shapes and measurements and cystidial and cap cuticle characters are also given for each species in the index.

But it is primarily for the coloured plates that this book will be valued. The quality of the illustrations has suffered little in reproduction and their high standard combined with Dr. Hora's careful editing of the text make this a first-rate guide to the identification of the larger fungi.

W.A.S.

VARIABLE PLUMAGE IN REED BUNTINGS

R. F. DICKENS

IN the summer of 1960, I prepared the following notes for possible inclusion in *The Naturalist*, and showed them to J. Cudworth and the late A. Hazelwood, before submitting them. The latter commented that this could not be a case of feather-wear in normal female birds because the base of the feathers is not dark enough and he suggested watching out earlier in the season to see if incubating females were in any cases abnormal in plumage. I therefore left the matter for further investigation. However in the recent circulation of records among the Reports Committee, R. Chislett has written 'Reed Buntings can vary a lot. One female I knew had a black-brown head and a dirty white collar, and until I saw her mate, I thought *she* was the male. Both fed the young.' In view of this I have thought it appropriate to publish my original notes exactly as they stood in August 1960.

On Saturday, July 23rd, 1960, Miss B. Lonsdale and Miss M. England drew the attention of G. R. Bennett and R. F. Dickens to a Reed Bunting's nest they had found on Spurn Peninsula. The nest contained four almost fully-fledged young, and while we were watching it, a parent bird arrived with food. From its blackish head, we presumed this was the male bird beginning to change into its winter plumage. But a second bird which subsequently arrived with food was undoubtedly the cock bird, having a uniform glossy black head, clear white collar and moustachial stripes, and a complete clearly-defined bib.

A closer look at the first bird showed that it had a completely black cap, a somewhat obscured superciliary stripe (a little more conspicuous on the right side), rather patchy brownish-black cheeks, a distinct moustachial streak (though not as clear as in the male in good plumage), a complete, but off-white collar, and a black bib which although divided by a whitish patch under the chin, extended on the upper breast. The bib was not as clearly defined as in the cock bird.

On the following day, the birds were again watched and P. J. Mountford's attention was also drawn to them. Observers agreed that a superficial view would give the impression that the first bird we had seen was a male bird, and that even with closer study, in the field it would have passed for a male bird moulting into winter plumage.

Three possibilities suggest themselves. A typical female bird was seen about 100 yards away, and the possibility of bigamy was considered. It was soon found, however, that this female was a mated bird, also feeding a brood of young. At the nest we had under observation, no typical female was seen at all, although the two birds were watched repeatedly bringing food.

Secondly, the bird we had first seen may have been, as we originally thought, a male bird in incomplete plumage. It could possibly have been an additional male or adolescent bird assisting with the rearing of a brood of young where a female parent had been lost, or was already engaged with a subsequent nest. This we dismissed, because although there was a resemblance to a male bird in appearance, differences in behaviour made it readily distinguishable and suggested a female. There was a slight difference in call note, the bird fed the young with less hesitation, and there was a greater tendency to give distraction display.

The *Handbook of British Birds* states that abrasion gradually makes the crown of the female darker, but never uniformly black, that a narrow greyish white collar at the back of the neck appears in much worn specimens, and that the streaks on the breast and flanks become more prominent. I think therefore the correct solution is that this was a well marked female whose very worn plumage resulted in a completely black crown and the streaks on the breast merged to form a bib.

This recalled observations made by A. H. B. Lee and R.F.D. in June, 1954, when two presumed males were seen feeding young in a nest at Brotherton. My notes for that occasion were: 'Reed Bunting nest with four young, about six days old. Two birds fed these—both apparently males. One was a well-marked cock bird, the other less conspicuously marked (moulting or first-year bird?). The black of the head was less intense, and less contrasting with the white collar than in a male in full breeding plumage. No female seen during half-hour watch.'

It may well be that close examination of pairs of Reed Buntings in late summer will show that female birds are not infrequently so like moulting male birds that the greatest caution should be exercised in sexing trapped birds, and, of course, where any doubt exists, the attempt to sex them should not be made.

HAWES, V.C. 65, 1st-3rd June

The Whitsun meeting was well attended some thirty members taking part, a few for one day, the majority for the whole weekend. The weather throughout was excellent, although the strong wind on Sunday made observations of both birds and plants rather difficult. Three very different types of country were visited and all proved interesting, while the countryside generally was looking very beautiful. Saturday's excursion to Marsett and Raydale was in upland grassland, the only woodland had been heavily grazed and is now in a degenerate condition. There was some interesting ground near the beck, and the two ponds near Raydale house were worth the visit. Sunday was spent on the disused railway line towards Garsdale Head. Here the botanists had a good day but photographers found the strong wind difficult to contend with.

On Monday, the well-worked area of Millgill and Whitfield Gill was sheltered from the wind and provided the botanists with *Actaea spicata* (Baneberry or Herb Christopher) a plant not seen here for many years. The party only worked as far as Whitfield Gill waterfall, leaving some attractive ground to be explored at some future date. As the party returned to headquarters on Sunday, the alien Oxford Ragwort was noted in the railway sidings, a new station for this plant sometimes called 'Railway Ragwort' from its spread throughout Britain along railway lines. It is a rare plant in Vice-County 65, although common in many parts of Yorkshire.

Fifteen affiliated societies answered the roll-call at the meeting when reports on the weekend's work were presented by the representatives of the sections present. Dr. Sledge thanked the Divisional Secretary for organising the meeting and Miss Rob proposed a vote of thanks to Mr. Kit Calvert, without whose help it would not have been possible to arrange the meeting.

ORNITHOLOGY (R. Chislett): In the upper parts of Wensleydale, 61 species were noted in several days, for which G. E. Alderson, Miss M. Andrews, R. Chislett, A. C. M. Duncan, D. Hodgson, T. Scaling, C. Simms, and Mrs. C. A. Ward were mainly responsible. Nests were found of Lapwing, Curlew, Ring-Ouzel, Meadow-Pipit, Wren and Oystercatcher. Special note was taken of comparative prevalence in view of the reductions in numbers of common species after the toll levied by the severe and protracted winter.

Lapwings were much reduced but Curlews were near to normal. The thrush tribe had evidently been hit heavily and I noted more Ring-Ouzels on the high ground than Blackbirds, Song and Mistle-Thrushes combined anywhere. Robins and Hedges-Sparrows were scarce, Willow-Warblers common wherever there were trees. The few Grey Wagtails and slightly more numerous Pied Wagtails combined were less numerous than the ubiquitous Yellow Wagtails. Chaffinches were fairly numerous, Linnets and Redpolls scarce. Wrens were only noted in one small area. Skylarks were pleasingly abundant, as were Redstarts, with only one pair of Whinchats noted. No Woodpeckers were noted. An Owl had dropped castings in a wood, the only sign of its family. A Kestrel was the only hawk.

Fishing and boating around and on Semerwater had banished the grebes. A pair of Tufted Duck were the only birds on the water and Sandpipers, formerly so common, had become scarce.

Other species noted were: Mallard, Teal, Red Grouse, Partridge and Pheasant (both scarce), Snipe, Golden Plover, Dunlin, Lesser Black-backed and Black-headed Gulls, three 'comic' terns, Woodpigeon, Cuckoo (in several places), Swift, Swallow, House-Martin, Sand-Martin, Carrion Crow, Rook and Jackdaw, seemingly all unaffected by the severe winter; Great, Blue and Marsh-Tits (all somewhat scarce), Dipper, Wheatear, Sedge-Warbler, Garden-Warbler, Whitethroat, Wood-Warbler, Spotted Flycatcher, Pied Flycatcher (one), Hedge-Sparrow (scarce), Tree-Pipit, Starling, Goldfinch (one pair), Reed-Bunting, and House-Sparrow.

FLOWERING PLANTS (W. A. Sledge): With splendid weather prevailing throughout the week-end, the valley and fells around Hawes were looking at their best. Winter's banks of snow were replaced by drifts of Bird Cherry and Sweet Cicely, their flowers unspoilt by wind or rain. Wood Cranesbill and Wood Forget-me-not were not yet at their best but Mealy Primrose was in full flower. About 250 species were noted during the week-end; a somewhat meagre total for three full days' recording though a normal result in such upland terrain without arable cultivation, and a total which could be added to at a later date when grasses and some other plants are more in evidence.

The best plant seen on Saturday's excursion to Raydale above Marsett was *Ribes spicatum* which was in full flower by the stream above Raydale Grange. Other plants seen during the day were *Cardamine amara* (Large Bitter-Cress), *Cochlearia officinalis* ssp. *alpina* (Mountain Scurvy-Grass), pistillate plants of *Petasites hybridus* (Butterbur), *Cirsium heterophyllum* (Melancholy Thistle), *Crepis paludosa* (Marsh Hawk's-Beard), *Primula farinosa* (Mealy Primrose), *Veronica montana* (Wood Speedwell), *Salix pentandra* (Bay-leaved Willow), *S. purpurea* (Purple Willow), *S. phylicifolia* (Tea-leaved Willow), *Carex paniculata* (Tufted Sedge) and *Thelypteris oreopteris* (Mountain Fern). Mr. Chislett reported seeing *Trollius europaeus* (Globe flower) in wet pastures near Semerwater.

On Sunday the botanists worked the disused railway line from Hawes as far as Mossdale. The embankments along some sections of the line are now being used for grazing but for the most part they are undisturbed and are refuges for a varied flora. *Pyrola minor* (Lesser Wintergreen) and *Coeloglossum viride* (Frog Orchis) were seen on the embankments together with *Trollius europaeus* (Globe Flower), *Geranium sylvaticum* (Wood Cranesbill), *Myosotis sylvatica* (Wood Forget-me-not), *Cirsium heterophyllum* (Melancholy Thistle), *Salix phylicifolia* (Tea-leaved Willow) and *Selaginella selaginoides*. *Ophioglossum vulgatum* (Adder's Tongue Fern) was seen here and on both the other excursions. The New Zealand Willow-herb, *Epilobium nerterioides* was found on the Mossdale railway bridge and at many places between Hawes station and Mossdale the alien Wood-rush *Luzula luzuloides* was plentiful.

Many species noted on the previous days' excursions were encountered again on the Monday when Mill Gill and Whitfield Gill above Askrigg were visited. The old record for *Actaea spicata* (Herb Christopher) cited in Baker's Flora was confirmed. Five plants were seen. *Stellaria nemorum* (Wood Chickweed) was abundant near the lower fall and *Saxifraga aizoides* (Yellow Mountain-Saxifrage) was seen in its well-known station at Whitfield Force, its only North Riding station other than upper Teesdale. *Asplenium viride* (Green Spleenwort) was also noted on the rocks at Whitfield Force. Mr. Chislett reported seeing *Rubus chamaemorus* (Cloudberry) on the fell top above Askrigg.

On Tuesday, I revisited the wood below Aysgill Force above Gayle to see *Ribes alpinum* (Mountain Currant) where I last saw it on the 1936 Y.N.U. Excursion. Several hours were subsequently spent on Dodd Fell searching for those elusive species recorded by Dr. Lees which were searched for in vain in 1936. The summit region has a very restricted flora typical of such peat-covered fell-summit areas. Cloudberry is there but was not flowering. On the dry mountain limestone below the grit rocks at 1,900 feet, *Draba incana* (Hoary Whitlow-Grass), *Saxifraga hypnoides* (Mossy Saxifrage), *Sesleria caerulea* (Blue Sesleria) and *Adoxa moschatellina* (Moschatel) the last named in the shelter of a stone wall and at an unusually high altitude, were seen; but calcareous flushes such as would alone give ecologically suitable conditions for *Thalictrum alpinum* and *Juncus triglumis* were nowhere to be found.

Nomenclature follows Dandy's *List of British Vascular Plants*.

Bryology (Miss M. Dalby and G. A. Shaw): This report refers only to Whitfield Gill, as the writers were able to spend only the one day at the meeting.

The hepatic *Nowellia curvifolia* was conspicuous on many of the fallen tree trunks in Whitfield Gill. On the wet cliffs, *Cratoneuron commutatum* and *Eucadium verticillatum* were frequent, the former fruiting abundantly, the latter sparingly. Careful search under the overhanging rocks revealed plenty of *Seligeria trifaria* in fruit. At the head of the gill, *Preissia quadrata* was abundantly fertile.

The best find of the day, however, was a capsule on *Breutelia chrysocoma*, which moss was plentiful on the open moorland above the tree-line of the gill. This moss is very rare in fruit and I question whether it has been found in this condition in Yorkshire since the late Dr. Bedford's discovery of it near Sedbergh in 1940. For an informative account of the fruiting of *Breutelia* reference should be made to Dr. Bedford's paper in *The Naturalist*, 1940, 113. Here he suggests that *Breutelia* is so rarely found in fruit for the following reasons: (1) the remarkable segregation of the sexes; (2) the rarity of male colonies; (3) the restricted fertilisation range of the male plant. The large terminal discoid male flowers are easily seen when present (they were quite apparent at Whitfield Gill), and it is suggested that the presence of male flowers, although no certain guide, does at all events give the possibility of fruit. It must also be borne in mind that the capsule is normally hidden from view by innovations and it is usually necessary to part the stems before any fruit can be seen.

The following is a list of bryophytes definitely identified. Nomenclature follows *An Annotated List of British Mosses* (Richards & Wallace), and *An Annotated List of British Hepatics* (Jones).

Sphagnum papillosum
S. subsecundum var. *auriculatum*
S. fimbriatum
S. girgensohnii
S. plumulosum
S. capillaceum
Atrichum undulatum
Fissidens taxifolius
Ceratodon purpureus c. fr.
Seligeria trifaria c. fr.
Dichodontium pellucidum
Leucobryum glaucum
Gymnostomum aeruginosum c. fr.
G. recurvirostrum
Eucladium verticillatum c. fr.
Grimmia apocarpa c. fr.
Rhacomitrium aciculare
Pohlia albicans
Bryum pallens
B. capillare
Breudelia chrysocoma c. fr.
Fontinalis squamosa

Neckera crispa
Thamnum alopecurum
Anomodon viticulosus
Cratoneuron commutatum c. fr.
Hygrohypnum luridum
Camptothecium sericeum
Eurhynchium riparioides
Pleurozia schreberi
Plagiothecium denticulatum
Ctenidium molluscum
Rhytidiadelphus triquetrus
R. squarrosus
Conocephalum conicum
Preissia quadrata
Metzgeria furcata
Solenostoma triste
Plagiochila asplenoides
Cephalozia bicuspidata
Nowellia curvifolia
Scapania umbrosa
S. aspera
S. undulata

LITTLE WEIGHTON, V.C. 61, June 15th

Those attending this meeting enjoyed very good weather and a very pleasant countryside. Thirty-two people attended, all but five being from the Hull area: seven societies were represented. The morning was spent in Risby Park and in the afternoon the Berkhill wood area was visited. Mr. Dearing, one of the keepers on the estate, accompanied the party for part of the day and soon became a keen botanist!

Mr. R. Chislett took the chair at the meeting after tea. A vote of thanks to the landowner, Captain A. Wilson-Filmer was moved and carried, also to the head-keeper, Mr. F. Childs and to Mr. Dearing, as well as to the Divisional Secretary who had made the arrangements and to the Rev. D. C. Urquhart for his invaluable help. Five new members were elected.

FLOWERING PLANTS (E. Crackles); In the morning, the botanists visited Fishpond Wood. Species noted included: *Athyrium filix femina* (Lady Fern), *Cardamine flexuosa* (Wood Bitter-cress), *Lysimachia nemorum* (Yellow Pimpernel), *Lycopus europaeus* (Gipsywort), *Veronica officinalis* (Common Speedwell) and *V. montana* (Wood Speedwell). *Acorus calamus* (Sweet Flag) forms extensive beds both at the lake margin and in the marsh beyond the wood.

Pedicularis sylvatica (Lousewort) is locally common on grassy slopes in a field west of the wood. *Dactylorhiza maculata* ssp. *erictorum* (Heath Spotted Orchid), a rare East Yorkshire species, occurs at the bottom of this slope, while the hybrid *D. maculata* ssp. *erictorum* × *D. fuchsii* is found on the edge of the low-lying marsh which contains *D. fuchsii* (Common Spotted Orchid), as well as a number of marsh plants including *Equisetum palustre* (Marsh Horsetail), *Stellaria alsine* (Bog Stitchwort) and *Carex ovalis* (Oval Sedge).

Lunch-time was spent in the vicinity of a hillside bearing a chalk flora: species occurring here include *Brachypodium pinnatum* (Heath False Brome), which is locally dominant; also *Helianthemum chamaecistus* (Common Rockrose), *Linum catharticum* (Purging Flax), *Poterium sanguisorba* (Salad-Burnet) and *Helictotrichon pubescens* (Hairy Oat).

The Berkhill wood area was visited in the afternoon. This area, although overgrown, retains many of the interesting species formerly found here. *Carex remota* (Remote Sedge) and *C. ovalis* (Oval Sedge) are frequent on the rides with *C. pallescens* (Pale Sedge) occurring more locally. On the site of felled woodland, *Calamagrostis canescens* (Purple Small Reed) has spread over a much greater area than formerly and *Milium effusum* (Wood Millet) is still frequent. Other species recorded include:

Lotus uliginosus, × *Geum intermedium* (Large Bird's-foot trefoil) with both parents, *Luzula pilosa* (Hairy Woodrush) and *L. multiflora* (Many-headed Woodrush). *Chrysosplenium oppositifolium* (Opposite-leaved Golden Saxifrage) was found on one of the wetter rides while *Paris quadrifolia* (Herb Paris) persists in one place, some twenty years after the felling of the oaks under which it formerly grew.

MAMMALS, REPTILES AND AMPHIBIA (B. S. Pashby); Several mole-hills were noted close to the Fishpond Wood area and Shrews heard in most areas. Rabbits were more common in the Risby Park pastures than at Gillywood. Plenty of Hares were seen in the surroundings fields. A Stoat was seen at Gillywood. (Field and Bank Vole skulls have been identified in Tawny Owl pellets from Risby). A Toad was seen in the small marsh at Risby.

ORNITHOLOGY (B. S. Pashby); A good attendance enabled the estate to be well covered and the intimate knowledge of the estate by keeper Dearing proved very valuable in assessing the effect on the bird life of the recent severe winter.

The Lapwing population of the surrounding fields was notably reduced and the odd breeding pair at the marsh in Risby Park was absent. One Green and one Great Spotted Woodpecker had managed to survive, but whether either had paired was not known. Three Long-tailed Tits in a party were the only ones of their kind to be seen, but three Tree-Creepers in one of the coniferous woods showed how well this species had stood the winter. The Wren population had been reduced to a pair in each of two woods at Risby and only two singing male Robins were noted. Of the Finches, Goldfinches and Bullfinches had fared badly, only two of the former and one of the latter being seen, whereas the Chaffinch, Greenfinch and Linnet were everywhere and the Lesser Redpoll, numerous at both Risby and Gillywood, delighted everyone with its spectacular song flight. Not a single Pied Wagtail nor a Goldcrest was seen, the latter being generally widely distributed here, but the Woodpigeons were in good number, as were the Thrushes. Of the summer visitors, two Cuckoos were seen, Willow Warblers and Whitethroats were common, Blackcap, Garden Warbler and Sedge Warbler in smaller numbers and the Lesser Whitethroat noted by two singing males. Turtle Doves and Spotted Flycatchers were thinly distributed; a pair of the latter had taken over the disused nest of a Willow Tit, excavated in a rotting stump two feet above ground. Corn, Yellow and Reed Buntings were recorded and of the Tits only the Blue and Coal Tits seen. Although they were not seen, a pair of Barn Owls were known to be nesting in a dead tree in the Park. A pair of Shelduck, at the edge of a small pond raised much conjecture; they flew off in a SW. direction, and had apparently been frequenting this pond for a few days. Other more common species seen in the Park and flying around brought the total number to 48.

ENTOMOLOGY (C. Hyde West); The members of the Section had an interesting day. Of the Coleoptera collected, those identified include *Harpalus ruficornis*, *Nebria ruficornis*, *Ferinia* (*Pterostichus*) *madridus*, and *Agonum dorsalis* under logs near the marsh; *Tachyporus obtusus* in Fishpond Wood, and on Hawthorn blossom *Meligethes viridescens*, *Anaspis ruficollis* and *A. maculata*, *Choleva grandicollis* and *Cantharis bicolor* were taken at Gilly Wood.

Only two butterflies were noted, *Pieris brassicae* and *P. rapae*. Other Lepidoptera included Carpet Moths in Fishpond Wood, and Brimstone Moth in Gilly Wood together with *Larentia montanala* and *L. ocellata*.

LANGDALE END, V.C. 62, June 29th

About twenty people assembled at West Ayton on a very unpromising morning. The torrential rain of the previous day and night had given way to a less violent downpour but the heavy grey sky and low cloud which threatened more rain to come when the party left their cars at Langdale End were so bleak and uninviting that prospects for the excursion were most unfavourable. The rain however, soon ceased and though it remained chilly and sunless throughout the day we were able to complete the proposed route—two and a half miles up the Derwent to High Langdale and back—in reasonable comfort. At the same time the conditions gave little inducement to those present to stray far from the path into the taller, sodden vegetation and Mr. Payne and Mr. Bramley in particular were hampered in their collecting by the wet conditions.

Eleven societies answered to the roll call following tea at headquarters. Reports

on the day's observations were made by representatives of four sections and a vote of thanks to Mr. Lawrence for his work in connection with the arrangements for the excursion was proposed by the President.

ORNITHOLOGY (R. Chislett); Those who braved the lowering clouds and early downpour in the effort to reach West Ayton by 10.15 a.m. were rewarded by a lovely valley set in wooded hills through which water surged to swell the brown, turbulent upper Derwent in spate. Observers included Mrs. J. Payne, R. Appleby, C. E. A. Burnham, C. S. Moxon, T. Sealing and myself.

Water levels had obviously been higher; slices of sandy bank had fallen in places; but Sand-Martins flew repeatedly to holes to feed young—nest holes of others may have fallen. A pair of Common Sandpipers seemed disconsolate—their eggs or young may have been washed away. From the same spit of shingle, two Green Sandpipers towered—early passage migrants—and nearby rose a Heron and a Pied Wagtail. About the woods near to the river, Marsh-Tits fed young in the branches; and Redstarts, Blackcap and Garden Warbler, Whitethroat, Willow Warbler and Chiffchaff, Tree-Pipit, and both Spotted and Pied Flycatchers were noted. Finches included Greenfinch, Linnet, Redpoll, Chaffinch and Yellow-hammer. In view of the damage done by the severe winter, it is pleasant to record at least one each of Green Woodpecker, Kingfisher, Tree-Creeper and Wren.

Other species noted were: Mallard, Pheasant, Herring Gull, Wood-Pigeon, Swift, Swallow, House-Martin, Skylark, Carrion Crow, Rook, Jackdaw, Great and Blue-Tits, Songthrush and Blackbird, Robin, Hedge Sparrow, Starling and House-Sparrow; making a total of 43 species, which would have been extended had the bracken and other herbage been less water-logged.

MAMMALS, ETC. A few Rabbits and Moles were noted, and tadpoles, but the Derwent was too turgid, rapid and deep for *pisces* to be seen.

FLOWERING PLANTS (W. A. Sledge): The route from Langdale End up the valley of the Derwent to its junction with the Lownorth Beck leads through well wooded country. Near Langdale End the vegetation shows evidence of a relatively base-rich soil with Hazel, Bird Cherry and *Rosa villosa* frequent. Higher up the valley the flora becomes progressively more acidic in character with Ling, Bilberry, Cow-wheat and Wavy Hair grass as significant indicators of the changing soil conditions. *Platanthera chlorantha* (Greater Butterfly Orchid) and both species of Spotted Orchid (*D. fuchsii* and *D. ericetorum*) were seen in the lower part of the valley. Sedges were numerous, ten species of *Carex* including *C. laevigata* and *C. pallescens*, and *Scirpus sylvaticus* was noted in two or three places. *Potentilla anglica* (Creeping Tormentil) and *Hypericum humifusum* (Trailing St. John's-wort) were seen by the path side and *Pentaglottis sempervirens* (Evergreen Alkanet) was in the hedge at the point where the cars were left. Ferns and Horsetails seen included *Thelypteris oreopteris* (Mountain Fern), *Dryopteris borreii* (Borrer's Male Fern), *Equisetum telmateia* (Great Horsetail) and *E. silvaticum* (Wood Horsetail). Other species observed were all too characteristic of the type of ground covered to call for comment.

Nomenclature follows Dandy's *List of British Vascular Plants*.

FUNGI (W. G. Bramley): The sodden state of the vegetation was not conducive to intensive collecting with the result that many species which were no doubt present were not collected.

Some 40 species, chiefly those classed as micro fungi, were finally determined. Several agarics were seen but not collected. A feature of some old oak logs was the number of *Polyporus squamosus* on one and *Pleurotus ostreatus* covering another. A single specimen of *Polyporus sulphureus* was seen in another locality. The bright yellow galls, especially when seen from underneath, of *Taphrina populina* were abundant on a number of planted poplars and *T. tosquinetii* was also found on *Alnus*. The former is not uncommon but there are few Yorkshire records for the latter though the writer saw it in Newton Dale a week earlier.

Cyphella villosa, which to the eye seems to be a *Dasyscypha*, also appears to be seldom collected. *Microscypha grisella* is also not often recorded but can probably be found wherever bracken is plentiful.

A full list of the species determined has been sent to the Scarborough Field

Naturalists' Society and one kept by the writer. The list includes the following species:

Synchytrium taraxaci de Bary and Woron., on *Taraxacum*

Taphrina tosquinellii (West.) Magn., on *Alnus*.

† *Leptosphaeria derasa* (B. & Br.) Ancrew, on *Senecio jacobea*

Sillia ferruginea (Pers.) Karst., on *Corylus*

Dasyscyphus acutipila (Karst.) Sacc., on *Dactylis*.

† *Dasyscyphus nudipes* (Fuckel) Sacc., on *Filipendula ulmaria*. This is very common on meadow-sweet in early summer and must have been overlooked when the *Catalogue* was compiled.

Dasyscyphus fuscescens (Pers.) Rehm, on *Quercus* leaves.

* *Microscypha grisella* (Rehm) Syd., on *Pteridium* fronds.

Cyphella villosa (Pers.) Karst., on *Senecio jacobea*.

Amanita excelsa Fr.

† Not in Mason & Grainger's *Catalogue of Yorkshire Fungi*

* Not in Mason & Grainger's *Catalogue of Yorkshire Fungi* for V.C. 62.

MELTHAM, V.C. 63, July 7th

The week preceding the meeting had been very wet and rain fell as we set off in the morning. However, it soon cleared and the remainder of the day was cloudy but dry save for a heavy shower at tea time. The day was mainly spent in exploring Royd Edge Clough, which is an interesting high level valley leading up to the moors. Despite the uncertain weather and the wetness underfoot, all the members and friends who attended had an enjoyable time and much useful work was done, especially by the entomologists who were quite strongly represented.

Twenty-five members attended the meeting after tea, which was presided over by Mr. G. A. Shaw in the absence of any Vice-Presidents. Ten Affiliated Societies answered the roll-call. Reports were submitted and votes of thanks passed to the farmers on whose land we had been working, and to Mr. Crossley, the Local Secretary, who had made the arrangements.

ORNITHOLOGY (Derek Mallinson): High moorland cloughs rarely produce anything out of the ordinary and Royd Edge was no exception. As we walked steadily up the valley bottom alongside the stream Linnet and Meadow Pipit bounced about over the bracken slopes and Yellow Hammers called continually. A Tree Pipit was noted and three Mallard flew over in a southerly direction, presumably from Blackmoorfoot Reservoir two miles away to the north. The small collection of trees and bushes below the farm gave us Willow Warbler, Blackbird, Song Thrush, Blue and Great Tits, Wren, Robin and Hedge Sparrow.

We decided to strike up the south-west gully to the quarry and moor at the 1,100-1,200 feet level in the hopes of seeing the Merlin which is recorded in this area. We were unlucky! However, on the way up we noted two family parties of Mistle Thrush and the quarry produced one Stock Dove. This and one Wheatear was our only reward for the strenuous climb to the edge of Meltham Moor. Red Grouse, which breed on the moor, were absent and only one Curlew was heard all day.

One Wagtail was seen, the Pied, although I have recorded the Grey in this locality. Swallow, Swift and House Martin were present at the lower end of the clough and near the farm. As we returned to the main valley down the north slopes a party of fifteen Twite, a Ring Ouzel and two Whinchats were a welcome sight and, I think, made up for an otherwise uneventful day. Eleven other species were recorded including a cock Reed Bunting and two gulls, the Black-headed and the Lesser Black-back.

ENTOMOLOGY (J. H. Flint and E. W. Aubrook): The wet start to the day hampered collecting and the results were not as good as had been expected. Insects were scarce and hard to find but became more plentiful in the late afternoon just before the rainstorm stopped all activity. Among the Hemiptera *Velia caprai* Tam. was common on the beck as were *Pithanus maerkeli* (H.-S.) and *Delphacodes discolor* (Boh.) among the grasses. The striking *Cixius cunicularius* (L.) was frequent all along the valley, *Psammotettix nodosa* Rib. (new to V.C. 63) occurred on *Deschampsia* slopes and *Delphacodes forcipata* (Boh.) among grasses in a *Sphagnum* bog. Other bugs taken were *Dicyphus pallicornis* (M.-D.), *Orthotylus marginalis* Reut., and *Scolopostethus decoratus* (Hahn.).

Mr. Roy Crossley found hoverflies equally scarce but it was pleasing to see *Sericomyia sillentis* Harris on Umbelliferae. Other species taken included *Syrilla pipiens* L., *Platychirus peltatus* Mg., *P. manicatus* Mg., *P. immarginatus* Zett., *Helophilus pendulus* L. and *Melanostoma mellinum* L.

Mrs. Flint reports that, with a few exceptions, sawflies also were scarce. The exceptions were *Rhogogaster viridis* (L.), *Tenthredo livida* L., and *T. balteata* Klug, which became quite common in the late afternoon. Other species taken included *Stromboceros delicatulus* (Fall.), *Strongylogaster lineata* (Christ), *Dolerus aeneus* (Hart.), and *Nematus incompletus* Forst. (new to V.C. 63).

Coleoptera in general were not numerous, and most species seen were represented by single or few examples. *Bembidion redtenbacheri* K. Dan. was common under shingle along the stream, and stone-turning produced *Amara vulgaris* L., *Nebria gyllenhali* Sch., *Corymbites aeneus* L., and *Byrrhus pilula* L. Several *Corymbites incannus* Gyll. were swept from vegetation, along with *Sericus brunneus* L. and *Athous hirtus* Hbst. *Arpedium brachypterum* Gr. occurred in liverwort near the side stream. A dead sheep provided the largest number of specimens, including *Omosita depressa* L., *O. discoidea* F., *Nitidula bipunctata* L., *Hister striola* Sahl., *Catops kirbyi* Spence, *C. tristis* Pz., and *Necrobia violacea* L.

FLOWERING PLANTS (R. Crossley): The clough proved to be interesting, if unexciting, and all the species listed on the circular were encountered. It was too early to see *Wahlenbergia hederacea* (Ivy Bellflower) in flower but the foliage was found in two localities. *Dryopteris borreii* (Golden Male Fern) was particularly conspicuous towards the head of the clough and the fine sight it presented drew admiring comments from the botanists. Not far away large areas of the steep, wet hillside were dominated by the fine sedge *Carex lasiocarpa*, which was at its best, and amongst it were numerous plants of *Crepis paludosa* (Marsh Hawksbeard). A small quantity of *Potamogeton polygonifolius* (Bog Pondweed) was found in a boggy area and a single specimen of *Dactylorchis maculata* subsp. *fuchsii* (Spotted Orchid) was seen in one of the lower fields. A non-flowering plant of *Fragaria vesca* (Wild Strawberry) on a shale bank high up the clough was an unexpected plant in such a habitat.

Bryology (G. A. Shaw): The most interesting parts of Royd Edge Clough from a bryological point of view were the frequent flushes on the sides of the clough. These showed in most cases *Sphagnum squarrosum* and *S. recurvum*, *Dicranella squarrosa*, *Philonotis fontana*, *Bryum pseudotriquetrum*, and *Pellia epiphylla*. Other mosses seen included *Orthodontium lineare*, *Dichodontium pellucidum*, *Plagiothecium denticulatum* and *Acrocladium cuspidatum*. Mr. E. Thompson found a small amount of *Oligotrichum hercynicum*. The dominant hepatics were *Scapania undulata* in the stream and *Orthocaulis floerkii* on the sides. *Cephalozia bicuspidata* and *Calypogeia muelleriana* were also seen.

Nomenclature follows Richards and Wallace (1950), and Jones (1958).

I am indebted to Miss M. Dalby for naming the *Sphagna*.

ASKHAM BOG, V.C. 64, July 20th-21st

Hot sunny weather prevailed throughout the weekend. Numbers averaged 30-40 each day, but since many people came on only one of the days, between 50 and 60 members, representing 16 Societies, are estimated to have taken part.

Both days were spent at the Bog—including Challoner's Whin—and local members of the Yorkshire Naturalists' Trust; Miss Day, Mr. Medd, Dr. Wegener, and the Secretary, Mr. C. J. Smith, acted as guides. Their participation and help added much to the enjoyment of the meeting.

At Copmanthorpe Women's Institute an excellent tea was kindly provided by Mrs. K. G. Payne and family. Afterwards Mr. R. Chislett took the chair for the meeting when reports were given. Mr. D. F. Walker proposed and Mrs. Duncan seconded a vote of thanks to the leaders, and to Mrs. Payne and family for all their hard work. Dr. E. W. Taylor, President of the Trust, responded.

ORNITHOLOGY (R. Chislett): Among the 60 people, or thereabout, who met on one or other of the two days (and a few on both) were several ornithologists. Birds identified totalled 41, which I thought good for this area of ancient marshy woodland in late July when few birds sang; no doubt several were missed. The Moorhen was the only large water-side bird noted: no hawks or game birds, waders or gulls were seen. Wood-Pigeons were conspicuous and a few Turtle Doves. Swifts and Swallows hawked above. We were very glad to record Green Woodpecker, Tree-Creeper and

Wren. Robins were fairly numerous with both adults feeding young and other young on the wing. Five members of the crow group included a family party of Jays. Titmice included Marsh and Willow, and Long-tailed, as well as Blue and Great. Six species of Warbler did not include either Reed or Grasshopper about which there was some doubt. Tree-Pipit occurred but no Wagtail. Finches included Greenfinch, Linnet (fairly numerous), Bullfinch, Chaffinch (scarce), Yellow-hammer, Corn-Bunting, Reed-Bunting and Tree-Sparrow. A Nightingale had been heard by a number of people (including Miss Day and Dr. Taylor) on several days in June.

MAMMALS ETC. Three Weasels were watched walking in procession.

ENTOMOLOGY (excluding Coleoptera) (J. H. Flint): The entomologists were favoured by excellent conditions and, as is usual at Askham Bog at this time of the year, some species of insect abounded. In most orders, however, results were disappointing, and in particular Messrs. A. Brindle, K. G. Payne and R. Crossley all commented on the paucity of interesting flies.

Mr. Payne writes that neither Empids nor Tipulids were plentiful, it being past the season of their maximum seasonal abundance, the only exception being *Empis livida* L. which was feeding on the nectar of Marsh Thistles and other flowers. Among the other flies taken by Mr. Payne by sweeping in the wood and along the drain sides were *Tipula unca* Weid., *T. lateralis* Mg., *T. montium* Egger, *Limnophila* (*Phylidorea*) *ferruginea* (Mg.), *L. (P.) fulvonervosa* (Schumm.), *L. (Pilaria) nemoralis* (Mg.), *L. (P.) discicollis* (Mg.), *Limonia* (*Dicranomyia*) *mitis* (Mg.), *L. (D.) modesta* (F.), *Hybos femoratus* (Muell.), *Ocydromia glabricula* (Fall.), *Campsicnemus curvipes* (Fall.) and *C. scambus* (Fall.). Mr. Crossley found hoverflies extremely disappointing, attributing this to a mid-season lull, though *Syrphus glaucius* L. was common on Hogweed umbels along the main ride, and with it, though less frequent, *S. laterarius* Muell. *Rhingia campestris* Mg. was very common on the north side of the bog, where *Eristalis intricarius* (L.) also was fairly common. Other hoverflies were *Syrphus luniger* Mg., *S. ribesii* L., *S. vitripennis* Mg., *Syrilta pipiens* (L.), *Leucozona lucorum* (L.), *Helophilus pendulus* (L.), *Volucella pellucens* (L.), *Eristalis arbustorum* (L.) and *E. horticola* (Deg.).

Hemiptera proved the most rewarding order as perhaps is to be expected in July. Among the Heteroptera, the extremely local *Capsus wagneri* Rem., only otherwise known in England from Wicken Fen, was plentiful and very active in the sunshine among the tall, marsh grasses and *Polymerus palustris* (Reut.), here at its northern limit in Britain and in its only known Yorkshire haunt, was common on the Marsh Bedstraw. The common *Pilhanus maerkeli* (H.-S.) was plentiful and it was pleasing to see a number of the infrequent female macropters which I have not encountered before. Other Heteroptera included *Mecomma dispar* (Boh.), and *Teratocoris saundersi* D. and S. Homoptera included three very local species new to the county and one new to V.C. 64. The discovery of **Araeopus pulchellus* (Curtis) and †*Euclidella speciosa* (Boh.) on *Phragmites*, and another marsh species, †*Delphacodes leptosoma* (Flor), extends the known northern limit of these species in Britain and all three were common here. Several examples of another marsh hopper, †*Mocuellus metrius* Flor, were taken but its numbers not assessed as it was not recognised in the field.

Mrs. Flint reports that there were quite a few sawflies about although, again, it was past the season of their maximum abundance. *Macrophya 12-punctata* (L.), was fairly common, and others included *Brachythops flavens* (Klug), *Selandria serra* (F.), *Dolerus aericeps* Thoms., *Rhogaster chlcrosoma* (Benson), *Tenthredo schaefferi* Klug and *T. velox* F. About half the material taken remains to be identified.

†=new to Yorkshire; *=new to V.C. 64.

COLEOPTERA (E. W. Aubrook): Many of the species listed by Fidler ('The Coleoptera of Askham Bog,' *The Naturalist*, 1949: 101-113) were taken by the coleopterists, together with a small number of additions, indicated *.

Open grass marsh: *Bembidion doris* Pz., *Cateretes bipustulatus* Pk.,* *Cyphon ochraceus* Steph., *C. coarctatus* Pk., *Strangalia maculata* Poda, *Clytus arielis* L., *Lema cyanella* L.,* *Hydrothassa marginella* L., *Psylliodes affinis* Pk., *P. picina* Moh.,* *Notaris scirpi* F., *Limnobaris album* L., *Rhinonchus perpendicularis* Reich., *Phytobius comari* Hbst., *Nanophyes marmoratus* Gz.

In the recently excavated pond: *Haliphys ruficollis* Deg., *Hygrotrus inaequalis* F., *H. impressopunctatus* Schall., *Hydroporus dorsalis* F., *H. erythrocephalus* L., *Agabus*

nebulosus Forst., *A. sturmi* Gyll., *Ilybius fuliginosus* F., *I. quadriguttatus* Lac., *Colymbetes fuscus* L.

In the pool by the railway: *Anacaena limbata* F., *Laccobius biguttatus* Gerh. *Monotoma picipes* Hbst. from litter and *Chalcoides fulvicornis* F. from willow were also additions to Fidler's list.

Coleoptera collected by J. Flint, P. W. H. Flint, K. Payne, E. W. Aubrook.

FLOWERING PLANTS (T. F. Medd); After several weeks of wet weather we were favoured with a fine and sunny weekend. The Bog was wetter than it has been in July for several years and it is hoped that it may, at last, have recovered from the dry summer of 1958. The opening page of the York and District Field Naturalists' Society Botanical Recorder's book reads, 'Askham Bog, our nearest and best hunting ground is being gradually dried up,' and that was written in the Report for the year 1894.

On the Saturday morning after a cursory examination of the edge of the golf course where *Cirsium dissectum* was flowering well, a few large specimens of *Osmunda regalis* (Royal Fern) in the Far Wood were visited. Returning to the 'tenth tee,' a few plants presumably introduced with the sand were noticed—these included *Chenopodium rubrum* and *Scleranthus annuus* (Knawel), both new to the 10 km. square.

After lunch the Middle Wood and Near Wood were examined and a fine patch of *Corydalis claviculata* (Climbing Fumitory) was noted. The pond dug out by the Nature Conservancy Corps in 1959 was inspected and seen to be carpeted with *Chara*. *Ranunculus lingua* (Greater Spearwort) was flowering nearby. The ditch to the east contained *Cladium mariscus* but there was no sign of it flowering. *Thelypteris palustris* (Marsh Fern) was common throughout the Bog but no fertile fronds were observed.

Later in the afternoon the edges of the golf course were again examined after inspecting *Carex appropinquata* near the ditch and a small party skirted the western end of the Bog.

On the Sunday morning the Far Wood was penetrated and the Royal Ferns were counted and labelled. In all fifteen were counted but there was no sign of natural regeneration.

The afternoon saw a visit to the eastern end of the Bog and the Chaloner's Whin region. The recently widened road bridge over the railway at Moor Lane gave a very different flora and the species noted include *Melilotus altissima* and *Carduus nutans*. *Ricciocarpus natans* in the pond was inspected before moving to the end of the Near Wood. Here *Potamogeton crispus* was noticed in the ditch running under the railway line and *Myosoton aquaticum* (Water Chickweed) was also observed.

A brief visit was paid to Leetham's pond to the north of the area to finish the day. It was pleasing to see a fine stand of *Ranunculus lingua* and this area would be worthy of a more intensive search.

In all, well over 200 species were recorded during the two days—more than half the total listed for the 10 km. square.

Nomenclature follows Dandy's *List of British Vascular Plants*.

The Heart of Nature, by Jaroslav Holeček. Pp. 166 with 165 photographic illustrations. Spring Books, Paul Hamlyn, London, 1963. 21/-.

This is essentially a picture book by an obviously keen animal and bird photographer in which 41 birds and 18 mammals of Czechoslovakia are depicted, some in series, a few in colour, together with photographs of some habitats and landscapes of the wild countryside. Among the birds shown that do not breed in Britain are: Great Bustard, Scops and Eagle Owls, Hazel Hen, Hoopoe and White Stork. Mammals include Brown Bear, Chamois, Lynx, Marten, and Wild Cat. With each photograph the author has written a pleasant paragraph, general and anecdotal, concerning the creature's habits. The quality of the photographs varies. The book does not gain by the inclusion of photographs of young birds that have left the nest too soon; and the admission that a juvenile Golden Oriole was tethered to the branch below which the nest was suspended is also a departure from the book's title, even if the adult hen did untie the knots. On the whole, I prefer the mammals to the birds, especially the attitudes and expressions of the Foxes emerging from a hillside earth, the Brown Bear, the Roaring Stag, and the Lynx photographs. Anyone familiar with the work of British zoological photographers will be interested to see some of the output of a Czechoslovakian photographer-naturalist done in the wild and reproduced on such a scale, and to read his comments. R.C.

BRYOLOGICAL MEETING, MACKERSHAW WOOD AND STUDLEY PARK, April 6th

F. E. BRANSON

TEN members were present on this occasion and the weather was very favourable. The area explored was the valley of the River Skell from Mackershaw Wood, Ripon, to Studley Park. Sixty-six species of mosses and hepatics were seen during the day, including *Orthotrichum diaphanum* epiphytic on the branches of a tree near the lake in Studley Park, *Rhynchostegiella tenella* on the limestone cliff at the side of the river and *Isopterygium depressum* on stones in several places in Mackershaw Wood. On one of the bridges in Studley Park was another species of *Orthotrichum* which was unidentifiable in its present state, although Mr. S. W. Greene, of the B.B.S., thinks it probably belongs to the *cupulatum* group. The river was very swollen owing to recent rains and this accounted for a number of aquatic species not being found. The occurrence of *Dicranum strictum* on a fallen trunk in Studley Park was most interesting and makes yet another location for this species. A number of species which I had noted on former occasions were not seen, amongst them being *Dichodontium pellucidum* var. *flavescens*, *Isothecium myurum*, *Mnium stellare*, *Brachythecium velutinum*, *Eurhynchium swartzii*, *Fissidens rufulus*, *Anomodon viticulosus*, *Camptothecium lutescens*, and *Zygodon viridissimus* var. *viridissimus*. To work an area thoroughly one must make numerous visits over a number of years. Several plants of *Gagea lutea* were on the banks of the Skell in Mackershaw, one of which was flowering. A list of the species noted is appended. Nomenclature follows Jones's *An Annotated List of British Hepatics* and Richards and Wallace's *An Annotated List of British Mosses*.

MACKERSHAW WOOD

<i>Pellia fabbroniana</i>	<i>Homalia trichomanoides</i>
<i>Leiocolea turbinata</i>	<i>Campylium stellatum</i>
<i>Lophocolea bidentata</i>	<i>Amblystegium serpens</i>
<i>L. cuspidata</i>	<i>Acrocladium cuspidatum</i>
	<i>Camptothecium sericeum</i>
<i>Fissidens taxifolius</i>	<i>Brachythecium glareosum</i>
<i>Dicranoweissia cirrata</i>	<i>B. rivulare</i>
<i>Barbula unguiculata</i>	<i>B. rutabulum</i>
<i>B. revoluta</i>	<i>Cirriphyllum piliferum</i>
<i>B. cylindrica</i>	<i>C. crassinervium</i>
<i>B. recurvirostris</i>	<i>Eurhynchium striatum</i>
<i>Pohlia nutans</i>	<i>E. praelongum</i>
<i>Bryum capillare</i>	<i>E. murale</i>
<i>Mnium hornum</i>	<i>Isopterygium depressum</i>
<i>M. longirostrum</i>	<i>Hypnum cupressiforme</i>
<i>M. undulatum</i>	<i>H. cupressiforme</i> var. <i>resupinatum</i>
<i>Neckera complanata</i>	

STUDLEY PARK

<i>Conocephalum conicum</i>	<i>Tortella tortuosa</i>
<i>Lunularia cruciata</i>	<i>Weissia controversa</i>
<i>Metzgeria furcata</i>	<i>Grimmia apocarpa</i>
<i>Nardia scalaris</i>	<i>Funaria hygrometrica</i>
<i>Plagiochila asplenoides</i>	<i>Orthodontium lineare</i>
<i>Lophocolea heterophylla</i>	<i>Bryum pallens</i>
<i>Porella platyphylla</i>	<i>B. caespitium</i>
	<i>Orthotrichum diaphanum</i>
<i>Atrichum undulatum</i>	<i>Climacium dendroides</i>
<i>Fissidens crassipes</i>	<i>Neckera complanata</i>
<i>F. cristatus</i>	<i>Thamnum alopecurum</i>
<i>Dicranum strictum</i>	<i>Thuidium tamariscinum</i>
<i>D. scoparium</i>	<i>Camptothecium sericeum</i>
<i>Campylopus flexuosus</i>	<i>Eurhynchium riparioides</i>
<i>Encalypta streptocarpa</i>	<i>Rhynchostegiella tenella</i>
<i>Tortula subulata</i>	<i>Pseudoscleropodium purum</i>
<i>T. muralis</i>	<i>Ctenidium molluscum</i>
<i>Cinclidotus fontinaloides</i>	<i>Rhytidiadelphus triquetrus</i>
<i>Eucladium verticillatum</i>	<i>R. squarrosus</i>

ENTOMOLOGICAL SECTION AT HAGG WOOD

J. H. FLINT

About a dozen entomologists took advantage of a fine morning to visit Hagg Wood, Colton, between Tadcaster and York on May 5th, but although there was plenty of sunshine—and some cloud—a strong, cold wind restricted collecting in the main to the sheltered margin of the south-east corner of the wood. Here the first sawflies, *Dolerus aeneus* Hart. were flying and hoverflies were frequenting willow bushes. Ten species of hoverfly were reported, conspicuous among them being the common *Eristalis intricarius* L., *E. pertinax* Scop. and *E. arbustorum* L.

Beetles were not plentiful but included *Cis alni* Gyll. and *Dryocoetinus villosus* (F.) under bark. The most profitable area for beetles was a small pond and its surrounding marsh. The water beetles included *Ochthebius minimus* (F.) and an abundance of small *Helophorus* which still remain to be identified. There were plenty of beetles in the marsh, on the mud and at the roots of the grasses, and these included five local species, *Bembidion clarki* Dawson, *B. biguttatum* (F.), *Stenolophus mixtus* (Hbst.), *Agonum gracile* (Gyll.) and *A. viduum* (Pz.). Other parts of the wood were visited but were generally unrewarding due to the retarding effect of the cold spring and the cold wind. A promising area of birch scrub yielded only common species and those but few.

A few white butterflies were seen and lepidopterists confined their attentions to the search for larvae.

The part was entertained to morning coffee and afternoon tea by Mr. and Mrs. K. G. Payne at their nearby home and this sociably completed a pleasant, if not particularly profitable, day. The members present are most grateful for this hospitality.

JOINT MEETING OF THE FLOWERING PLANT SECTION AND THE B.S.B.I. THIRSK, July 27th-28th

C. M. ROE

Although this joint meeting was poorly supported by the B.S.B.I., Y.N.U. members turned up in force. Perfect weather made conditions ideal for botany and an enjoyable week end was spent in two very different types of country.

Saturday's excursion was to Gormire and Butterdale Pond (also known as Little Gormire) an area very well known and well worked, situated in one of the most-botanised areas in the North Riding. In spite of the many previous visits, the party added five new plants to the square, making a total of 537 species.

This outing was of interest on account of the changes which were observed in the vegetation around Gormire Lake since the Union was last there in 1946. *Pilularia globulifera*, abundant in 1946, was not seen and the area where the plant used to grow now seemed very unsuitable. What was then open water is now a jungle of *Equisetum fluviatile*, and other strongly growing plants. *Naumburgia thyrsiflora* (Tufted Loosestrife) has increased considerably and now grows nearly all round the Lake. *Potamogeton alpinus* was abundant, washed up along the north-west shore, many of the plants in fine flower, but no sign of *P. gramineus* was seen.

Sunday's excursion, the official Section meeting, was to the under-worked Bilsdale square. Only 187 species are given in the Atlas so the object of the party was to visit as many different types of habitat as possible in the time available. The party split up and managed to include moorland, woods, roadsides, wet and dry grassland, streamsides and arable fields, the final total being 278, an addition of ninety-one species. Some of the more interesting plants added included *Corydalis claviculata*, *Stellaria nemorum*, *Anagallis tenella*, *Scirpus sylvaticus* and *Equisetum sylvaticum*. As there is still much ground awaiting investigation the total will no doubt be improved on by further work especially earlier in the season for there are a number of plants missing from the square which should be there for the finding.

A Study of Reptiles and Amphibians, by Alfred Leutscher. Pp. 80 with 35 photographs and 104 text figures. Blandford Press. London, 1963. 10/6.

A useful introduction to the natural history of reptiles and amphibians and their keeping as pets, with many interesting notes and suggestions for further study.
E.H.

DICRANUM STRICTUM SCHLEICH. AND ITS DISTRIBUTION IN YORKSHIRE

F. E. BRANSON

IN H. N. Dixon's *Student's Handbook of British Mosses* (3rd edition), this species is stated to be 'very rare', and is given as occurring in Staffordshire, Yorkshire, Midlothian and Inverness. The *Census Catalogue of British Mosses* (1926) compiled for the British Bryological Society gives it as occurring in vice-counties 33 (East Gloucester), 37 (Worcester), 39 (Stafford), 63 (S.W. Yorks.), 64 (Mid-W. Yorks), 83 (Edinburgh), and 96 (Easternness—East Inverness with Nairn). E. C. Wallace mentioned to me in a letter in 1958 that it is found to be spreading in southern England.

The Yorkshire records of this moss were Sunnydale (Bingley), Roche Abbey, Sawley High Moor and Plumpton. All my own records are from V.C. 64. On December 15th, 1957, I came across it on a prostrate tree trunk in Gormires Wood, Hampsthwaite. During an investigation of the bryophyte flora of Birkham Wood, Knaresborough, I saw it in numerous places on fallen tree trunks and living trees. The Birkham specimens are confined to one area of the wood, the part which contains the largest trees and has not been felled. This area is more or less on the Plumpton side of the wood. Last year (1962) I had it from a fallen tree trunk in a small wood on the edge of Brimham Moor and again on some dead sticks in the grounds of Fountains Abbey. On the recent bryological meeting of the Y.N.U. it was found in Studley Park on a rotten trunk by the River Skell, about a quarter of a mile from its Fountains station. It seems to like rotten wood best of all, but can occur on living trees and walls, as I have seen at Plumpton. It is a very brittle-leaved plant and when examined through a hand-lens almost every leaf has the apex broken off. In fact, when preparing a slide for microscopical examination it is difficult to find a leaf that is complete with apex. The plant forms bright green tufts, the leaves being straight, much as in the straight-leaved form of *Dicranum scoparium*, which it somewhat resembles, not falcato-secund as in the typical form of that plant. It can be recognised in the field by its more hard and brittle 'feel' and by the broken leaf apices.

D. strictum is sterile in Britain, but propagation is brought about by vegetative means. The broken-off apices have the power of forming new plants. The specimens which I have examined have strongly denticulate subulas, and this feature is somewhat more common than Dixon's description—'Entire or faintly denticulate at margin above'—would lead one to suppose. A specialist wrote to me that he had a specimen, determined by Persson (who has made a special study of *D. strictum*) in which the leaves are very strongly and closely denticulate in the upper portion—even more so than in my specimens. The basal cells are elongate-rectangular, four to eight times as long as broad, thin-walled and becoming shorter further up the leaf and almost quadrate near the summit. The cell-walls are not porose as in *D. scoparium*.

The distribution of this plant could be brought about by the agency of wind or by the means of birds, by transporting the broken-off apices which would grow into new plants if falling on a suitable substratum.

The present known distribution of *D. strictum* in Yorkshire is:

V.C. 63. Roche Abbey.

V.C. 64. Bingley; Brimham Moor; Sawley High Moor; Gormires Wood, Hampsthwaite; Plumpton; Birkham Wood, Knaresborough; Fountains Abbey; Studley Park.

The two sites at Bingley and Roche Abbey are evidently outliers and the headquarters seems to be the central portion of Nidderdale with a slight extension northwards.

Tasmanian Wild Life, by Michael Sharland. Pp. 86 with 27 photographs and one figure. Melbourne University Press, 1962. 25/-.

This collection of field studies will be of great interest to all naturalists who want first-hand information about Tasmanian mammals and snakes. The chapter on the unique Tasmanian tiger may well prove to be its history and last record. The style is most readable and I have much enjoyed sharing in the author's experiences of Tasmanian animals in their wild state.

E.H.

CORRESPONDENCE

ILLEGAL TO GAS BADGERS

The Editor, *The Naturalist*.

Sir,

Since a report last November of eight badger setts being gassed on Forestry Commission ground (but not by authority or with the approval of the Commission who are friendly to badgers) many cases of badgers being gassed have come to light. What most people seem not to realise is that it is in fact **illegal** to gas badgers. A categorical statement has been received from the Ministry of Agriculture, Hook Rise, Surbiton, Surrey, under date 27th August, 1963, and is as follows:

'Under the Protection of Animals Acts 1911 and 1927 it is an offence to place any poison in or upon any land or building except where poison is used (subject to certain precautions being taken) for the purpose of destroying rats, mice, or other small ground vermin. It is held that this generally prohibits the use of gassing powder or the placing of cylinders or canisters giving out poison gas. Section 4 of the Prevention of Damage by Rabbits Act 1939 modified this by permitting the use of gas in rabbit holes and Section 98(3) of the Agriculture Act 1947 extended this to allow the use of gas in any hole, burrow or earth for the purpose of killing animals to which that particular section applies. (These animals are rabbits, hares and other rodents, deer, foxes and moles.) Since badgers are *not* specified the gassing of them would appear to be illegal under the provisions of the Protection of Animals Acts.'

Those who, in the press and elsewhere, have strongly protested and pleaded against the gassing of badgers on the grounds of humane treatment for an animal generally—and officially—recognised as useful and beneficial to agriculture, seem in the main to have overlooked or been unaware of the fact that those who gas the badger are clearly laying themselves open to prosecution in the Courts. It is to be hoped that readers of *The Naturalist* will do what they can to broadcast the foregoing very important fact.

It seems that the 'gassers' fall into at least three categories:

- (1) The Rabbit Clearance Societies or their employees, who either deliberately or irresponsibly treat every hole as potentially holding rabbits.
- (2) Gamekeepers, either on instructions or because they personally suspect the badger of taking their pheasant eggs.
- (3) Hooligans who are out to kill and destroy provided they are not caught and punished.

In all these cases, and they have been now reported from almost all parts of the country, from Pembroke to the north of England, and in any others that, unfortunately, are only too likely to occur during the coming autumn, winter and spring months, it will be of the utmost value for the champions of the badger—and they are clearly many—to know that in opposing or reporting the gassings they **have the law on their side**. Incidentally the Council for Nature, 41 Queens Gate, London, S.W.7, are now actively investigating the whole position and cases should be reported to them.

Yours faithfully,

JOHN T. CAPRON,

Gillamoor, Fadmoor, York.

British Native Ponies, by Daphne Machin Goodall. 1p. 109 with seven colour and 87 monochrome plates. Country Life Ltd., London, 1963. 35/-.

This book records the historical ancestry of the nine native breeds of ponies of the British Isles, their characteristics and the influence upon the breed of the introduction into it of other stock as for example when the Connemara was crossed with a Welsh stallion with satisfactory results or with various other breeds with almost disastrous results. In each case the Breed Societies and their officials' addresses are given.

In a book serving such a useful purpose and so full of interesting information one wonders whether fewer illustrations but showing the individual ponies in greater detail might not have been an improvement; so often features are lost in the background, the view is too distant or too many people have been included in the photographs for one to be able to appreciate the characters of the breed.

E.H.

BOOK REVIEWS

Birdwatching, by **E. A. R. Ennion**. Pp. 138 with 8 pp. of black and white photographs and 67 line drawings. Pelham Books 16/-.

It is easy to be apprehensive at the thought of yet another introductory book on birdwatching. Much duplication of subjects is obviously unavoidable; but there is only one Dr. Ennion. In his inimitable, breezy manner he scans the world of birds and as might be expected from a practical naturalist, constructive suggestions for field-work are recommended throughout.

There is much sound advice for the beginner; indeed, his 'first hurdle', the chapter on identification justifies the personal notebook more convincingly than any previous author. The 'second hurdle' brings in more advanced biological details and would help a birdwatcher to graduate to ornithologist. Having ventured into development and structure, the author then examines the season-by-season life of the bird, dealing first with migration. All aspects are discussed, some a little too briefly; particularly that of the homing propensities of pigeons and shearwaters which led Dr. G. V. T. Matthews to put forward his sun-navigation theory. The chapter headed 'Dispersion' which might have been more clearly called 'Distribution' deals largely with local ecological niches and territorial behaviour, developing the latter beyond its nesting implications into post-breeding flocks and winter territories. Breeding and then communication receive full attention and in the latter it is emphasised that 'quiet contact notes and contented little sounds' and 'suspicion calls or quarrelling' are the most common but less well-known features of avian intercourse. Food supply and requirements are illustrated by the results of studying a 'natural' pasture and its dependent species.

Dr. Ennion ends with a discussion of the relationships between men and birds. His condemnations are reasonable and, with some justification, he fears that worthwhile preservation is often too little and too late.

A.H.B.L.

The Mountain Gorilla, by **George B. Schaller**. Pp. xvii + 431, with 35 plates and 69 figures. University of Chicago Press, 1963. 72/-.

The detailed study of individual animal species under natural conditions is an essential part of scientific natural history and as much knowledge as possible of our nearest mammalian relatives is clearly desirable; nevertheless an attempt to study the mountain gorilla in the dense tropical forests in which it lives requires pertinacity and courage of a quite uncommon order. One is continually amazed in reading this modestly written book at how successful the author has been in establishing an almost personal contact with these very shy animals and in recording so many aspects of their daily lives. For the general reader the longer descriptions of some of these aspects—nest-making habits and vocalisation, chest beating and social behaviour in general—can be read with pleasure as continuous narratives but much of the book is designed, and admirably so, as a source book with a very detailed text conveniently divided under separate headings. The general impression given by the work as a whole, apart from admiration for the author, is of how restricted are the potentialities of gorillas and how bleak their future.

T.K.

Annelids, by **R. Phillips Dales**. Pp. 200 with 19 text figures. Hutchinson University Library, London, 1963. 15/-.

This is the latest volume in a most useful series of books of restricted length, some dealing with particular animal phyla and some with more general topics of biological interest. A certain previous knowledge of the subject must be presumed but on that basis the present book on Annelids may be welcomed as a readable and up-to-date account of the functional anatomy and physiology of the group, quite worthy of its predecessors. The first chapter is the least satisfactory in that rather much ground is covered rather briefly, so that such complicated questions as the relationships of nephridia and coelomoducts become difficult to follow, but this is succeeded by interesting accounts of feeding mechanisms and digestion, excretion and osmoregulation, nervous control and locomotion and a particularly good chapter on the blood system and respiration. The book can be strongly recommended to students of second year and later, though for their purposes the binding might have been made somewhat more robust.

T.K.

Dolphins, by Antony Alpers. Pp. 251 with 18 photographic plates. John Murray. 25/-.

This is a greatly enlarged edition of the author's previous and very successful *A Book of Dolphins*. The original account of dolphin association with man remains and culminates in the charming story of Opo playing with children on a New Zealand beach. The biological section has been entirely recast and although not claimed by the author to be a scientific treatise, it incorporates the latest information and scientific studies on echo-location and hearing, learning and behaviour, locomotion and bow-riding. Written in such a way that it can be understood by any intelligent young person, it is a delightful book about fascinating animals. J.R.L.

Prehistoric Life on Earth, by Kai Peterson. Pp. 162 with 143 illustrations. Methuen & Co. 21/-.

While few people can now doubt the reality of evolution there will be many who are unaware of the vast range of types of plants and animals which have flourished and disappeared during the history of life on earth. As an introduction to this gallery the general principles of evolution are explained, and the development of man's ideas on this subject is examined in the light of the palaeontological and genetical evidence of the time.

Thereafter the author surveys the whole history of life from its uncertain origins to the appearance of man. The story unfolds in so many directions that unfamiliar names will surely cause some indigestion and make readers thankful for those paragraphs in which the author pauses to discuss the particular features which led to the success of one group or the decline of another. It is made clear that many questions cannot be answered, and the idea of 'straight-line' evolution is dispelled by many examples including the development of the horse.

The many colour illustrations depicting prehistoric scenes may perhaps jar slightly, but they convey more than words can do and will surely fire a young person's imagination and desire to learn more. Apart from the excess of species the text is very clearly written, and a skilful selection of examples—'magnolia trees were still growing in Greenland'—conjoins up at once the climatic conditions and changes underlying many of the faunal changes. At a time when extinctions through human activities are causing concern, this recommended book will place man in his correct perspective in the history of life on earth. J.R.L.

The Strange World of Animal Senses, by Margaret Cosgrove. Pp. 96, illustrated by the author. Phoenix House Ltd., 1963. 15/-.

The Senses of Animals, by L. Harrison Matthews and Maxwell Knight. Pp. 240, with 21 half-tone plates and 20 figures. Museum Press Ltd., 1963. 27/6.

These books deal with a field of biology which has not received the attention its importance merits. The subject itself is vast but each book in its own particular way provides an adequate and stimulating general introduction. All groups of animals are considered and the acuteness or otherwise of any one sense or its specialisation and functioning in relation to other senses are discussed with regard to the mode of life, whilst informative accounts are given of echo-location, migration and homing abilities, navigation and proprioceptor sense. The wealth of information presented shows how remarkable and how varied is sensory perception in animals and how different is their world from our own. Knowledge of the range of the senses and of the structure and capacity of sense organs however simple or complex is essential for biologist and field naturalist alike when seeking a proper understanding and interpretation of animal behaviour and it provides an effective counter to the all too common but erroneous assessments of animal activity by human standards.

The author of the first book, having been a medical illustrator in several hospitals, has enlivened her text with numerous distinctive sketches. Her account is a fascinating approach to the subject suitable especially for young people interested in animals in the wild or as pets.

The second book by well-known authors of established reputation, contains more detailed information and is divided into two parts; the first concerned with field observations and simple experiments and the second with the workings of the various senses, their nervous structures and physiology. Advanced students and field naturalists in particular will find much of value and interest in its admirable and authoritative presentation. E.A.S.

Flora of the British Isles, Illustrations, Part 3, Boraginaceae to Compositae. Drawings by Sybil J. Roles. Pp. vi + 116. Cambridge University Press, 1963. 32/6.

The third part of this companion volume to Clapham, Tutin and Warburg's *Flora* contains 441 drawings. As with the previous parts this one will be of value chiefly for the pictures it contains of species not illustrated elsewhere in works dealing with the British flora. Of these there are between 30 and 40 excluding 38 illustrations of Eyebrights and Hawkweeds equally divided between the two genera. It would seem ungracious to belittle these drawings without at the same time acknowledging the devotion and perseverance which Miss Roles has brought to her formidable task. Yet it cannot truthfully be said that they have much artistic merit. In terms of the pleasure given to the viewer they evoke only a lukewarm response. They lack clarity and firmness of outline and the unnatural appearance of so many is often accentuated by the crude representation of pubescence. (Compare for example the drawings of Daisy with Rough Hawkbit, or of Wood Speedwell with Borage, all of which appear to be equally hispid plants.) The dissections which accompany each figure help to offset the failure of many habit drawings to do justice to the species. But these are not always well chosen. The most reliable distinguishing character between *Myosotis scorpioides* and *M. caespitosa* is the different length of style in relation to calyx tube, but these are not shown in the illustrations. Nor is there any indication of the different stem pubescence in the Thymes though these are diagnostic for each of the three species represented. The insistence too on giving habit drawings of small, procumbent species results in confused and inelegant pictures which convey little save that the plant is small and procumbent. *Mentha requienii*, *Sibthorpia europaea* and *Galium saxatile* are examples. Bugle and *Teucrium scordium* are other unhappy examples of habit drawings.

All in all this is a disappointing work which falls well below the standard of the text which it is intended to supplement. The price also increases and the number of drawings decreases with each successive part. W.A.S.

How to Know the Wild Flowers, by Mrs. William Starr Dana. Pp. xlii + 418 with 174 full-page drawings. Dover Publications Inc.: Agents, Constable & Co., 1963. 15/.

Mrs. Dana was to New England botany what Anne Pratt was to British botany. No modernisation of their works is possible without stripping away the authors' personalities. Wisely therefore this reissue of an old favourite originally published 70 years ago remains virtually unchanged, save for revised nomenclature, from that of the 1900 edition. It is essentially a period piece well laced with quotations from the poets and passages from Thoreau, Emerson and others. As such it doubtless retains a place in the affections of older generations of American flower-lovers, but the idiom is too dated to appeal to the present generation of outdoor botanists, who are in any case well served with up-to-date works covering the same field at the same level. W.A.S.

Standard Encyclopedia of the World's Oceans and Islands, edited by Anthony Huxley. Pp. 383 with 16 colour plates, 72 monochrome photographs and 10 maps. Weidenfeld & Nicolson (Educational) Ltd., 20 New Bond Street, London, W.1, 1963. 45/.

To everyone not devoid of imagination and a streak of romance there is a compelling interest and fascination about oceans and islands. The more distant and inaccessible they are the greater the sense of enchantment or curiosity which they evoke. This is an alluring book therefore of interest both to the enterprising holiday-maker planning a visit to the Shetlands or Sardinia, or to the more ambitious armchair traveller who can afford to set his sights higher and contemplate a voyage through the North-West Passage or a visit to the Seychelles, Tierra del Fuego or Socotra.

There are more than 300 articles—plus a gazetteer with some 2,000 entries—contributed by 31 writers, in which the features of interest and history of exploration of all the seas and islands included are described. The illustrations add still further to the attractiveness of a handsomely produced book which will appeal strongly to everyone with a taste for travel or an inquisitiveness about the world's highways and bye-ways. W.A.S.

The Chain of Life, by **L. J. Ludovici**. Pp. x and 158, with frontispiece, 20 plates, and several text figures. Phoenix, 1963. 16/- net.

Mr. Ludovici has written a book in which he traces the history of the discovery of the processes of reproduction and the fundamental principles of heredity. What can I, as a professional geneticist, say of it? It is true, as the title implies, that Mr. Ludovici brings his material right up to-date. Thus we have an account of DNA and all that, but this fashionable topic has already been treated, more successfully I think, in several places.

There is nothing more difficult to write than good popularised science, and genetics is perhaps one of the sciences least amenable to successful treatment in this way. In order to be understood by his intended public, the author must simplify, but overmuch simplification results in the presentation of half-truths as fact, with an increasing danger that the reader will be seriously misled, not merely with regard to detail, but also his conception of basic principles. The author has to strive to achieve an exacting balance between the differing requirements of accuracy and simplicity. I do not think Mr. Ludovici has found this balance in his book. One recognises that it is not easy for a scientist to judge the real quality of a popular work in his own field because inaccuracies of all degrees will be only too obvious to him, and he may very easily be too critical of the author's work. Notwithstanding this consideration, I cannot deny that I dislike this book, and I will not recommend it. Certain of the text figures do indeed quite literally horrify me. But I realise that a great many lay readers may read this book with interest and appreciation. They are not likely to worry overmuch if they get hold of the wrong end of several sticks, since they will have no means of knowing it. J.D.L.

Pond and Stream Life of Europe in Colour. English editor, **John Clegg**, illustrations by Henning Anthon. Pp. 108 with 64 coloured plates. 1963.

Insects in Colour. English editor, **N. D. Riley**, illustrations by Edgar Hahne-wald. Pp. 116 with 64 coloured plates. Blandford Press, 1963. 10/6 each.

These admirable introductions are translations respectively from the Danish and Swedish originals, and the selection of examples is so good that there are very few species figured that one would not have expected to find in a purely British production. The figures are clear, the colours generally good and the layout of the plates extremely attractive. The text is restricted to brief notes on each species illustrated and a very short general introduction. These will make wonderful, inexpensive presents for any young person with a bent towards natural history and at the same time serve as good introductions to older people.

Pond and Stream Life is biased towards the larger organisms but does not neglect to mention the microscopic life. The selection of insects (and their larvae) is particularly good. Unfortunately, the Whirligig Beetle and an example of *Stenus* have turned out bright blue instead of black, and the Whirligig *Orectochilus* a bright light brown, and this will certainly puzzle the beginner who finds them.

Insects in Colour produces one of those problems that arise when a book such as this is translated from another language. The common bumblebee *Bombus terrestris* is correctly shown with a white tail in the queen as this is the continental form. But in Britain it would have a buff tail, hence the name which it is given, Buff-tailed Bumble Bee. This particular figure would more appropriately have been labelled *Bombus lucorum*. By an unfortunate slip, Emperor Moth is labelled 'male' instead of female, and while the Cockchafer is correctly shown in flight with the elytra open, the Rose Chafer is shown in flight with the elytra closed, an impossibility. The only error of labelling detected in *Pond and Stream Life* is where a series of the beetle *Plateumaris sericea* (or *P. discolor*), to judge by the colour range, are named *Donacia simplex*. These are but few errors and the volumes should be deservedly popular. J.H.F.

Zulu Journal: Field Notes of a Naturalist in South Africa, by **Raymond B. Cowles**. Pp. xiv+267 with 30 plates comprising 67 photographs and one map. California University Press; Agents, Cambridge University Press. 17/-.

Reviewed in the *Naturalist* of April-June, 1960, this work was then considered excellent value at 48/- in stiff covers. In the present reprint nothing is sacrificed in quality except the covers, now paper, and the price is much lower. The matter is in no way dated and yet is sufficiently topical to make it excellent, readable, background material to anyone interested in the problems of this fascinating region or of Africa generally. G.E.P.

Mushrooms and Other Common Fungi of the San Francisco Bay Region, by **Robert T. and Dorothy B. Orr**. Pp. 71, with eight plates and several text figures. University of California Press: Agents, Cambridge University Press, 1962. 12/-.

Introduction to Seashore Life of the San Francisco Bay Region and the Coast of Northern California, by **Joel W. Hedgpeth**. Pp. 136 with eight plates and numerous text figures. University of California Press: Agents, Cambridge University Press, 1962. 15/-.

Early Uses of California Plants, by **Edward K. Balls**. Pp. 103, with eight plates and several text figures. University of California Press: Agents, Cambridge University Press, 1962. 14/-.

These three volumes in the *California Natural History Guide* series are well suited to the needs of amateur naturalists in Western America but have only a limited relevance for British readers. This is least evident in the book on fungi since most of the species mentioned occur also in this country. The treatment is inevitably very selective: the colour photographs of 24 species are very good. Though the marine species of animals and plants differ in the two countries British readers will note the close similarity between types of organism and ecological niches on the coasts of both countries. *Early Uses of Californian Plants* describes the extraordinarily diverse and complicated usage made of their native flora by the Californian Indians in the days before the advent of the Spaniards when these people quite literally lived off the country. The plates include photographs of plants with such exotic popular names as Our Lord's Candle and Prince's Plume.

Snakes, by **H. W. Parker**. Pp. 191 with 17 photographs and 11 text figures. Robert Hale, Ltd., London, 1963. 21/-.

The Snake, by **John Crompton**. Pp. 152 with 20 photographs. Faber & Faber, 1963. 18/-.

The Curious World of Snakes, by **Alfred Leutscher**, illustrated by Barrie Driscoll. Pp. 32 with 28 drawings. The Bodley Head, London, 1963. 13/6.

Mr. Parker's well-illustrated and informative book is a 'must' for a zoologist wishing to be introduced to the biology of snakes, after which the reader will have been confirmed in herpetology! The author treats snakes as animals which have become highly specialised through evolution to their particular environments stressing their anatomical adaptations but not forgetting that they live. An appendix gives a useful list of antivenins and their makers whilst a bibliography is included for further reading.

Mr. Crompton writes about snakes in a very conversational way which anyone even remotely interested in natural history must find easy to read. Much of the book is concerned with African snakes among which he lived for seven years although such outstanding species as Russell's Viper, Water Moccasin and certain rattlesnakes have also been included.

The title of the third book suggests great possibilities for capturing the interest of the children for whom it is intended, but after carefully reading it one feels that an opportunity has been lost. The text would whet the appetite but, with few exceptions, the illustrations are disappointing. Their proportions and backgrounds certainly leave one guessing as to probable size and they display little feeling for the character of the species. E.H.

Game for the Sporting Rifle, by **Henry Tegner**. Pp. 191 with 20 photographs. Herbert Jenkins, London, 1963. 25/-.

Henry Tegner is a Vice-President of the Natural History Society of Northumberland, Durham and Newcastle-on-Tyne, a member of the Mammal Society of the British Isles, and a member of the Fauna Preservation Society. In this book he informs us of the habits of the red, roe, fallow and sika deer, wild goats, hares, rabbits, squirrels, rats, corvines, grouse and wood pigeons which provide game for the sporting rifle followed by advice as to suitable and unsuitable weapons for the destruction of these creatures and notes on the preservation of trophies.

After reading this book one is well able to understand the present anxiety to conserve what is left of native faunas when, as in Africa, so many species are considered on the verge of extinction. Even so Mr. Tegner, who had 'always wanted to do a shoot in Africa,' managed to devote his five days there to bagging a sable, a koodoo and two duiker bucks. It will interest only other 'sportsmen.' E.H.

CONTRIBUTORS

- Armitage, J., 108
 Aubrook, E. W., 17-18, 140-141, 142-143
 Bartley, D. D., 110
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 Bramley, W. G., 27-28, 139-140
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Yorkshire Naturalists' Union.

President :

W. A. SLEDGE, Ph.D., B.Sc.

Hon. Treasurer :

M. M. SAYER, Esq., 10 The Gardens, Heath Road, Halifax.

Assistant Hon. Treasurer and Membership Secretary :

G. A. SHAW, Esq., The Department of Botany, The University, Leeds 2.

Hon. General Secretary :

R. S. ATKINSON, F.Z.S., 46 White Hill Avenue, Barnsley.

Hon. Excursion Secretary and Divisional Secretary :

Miss C. M. ROB, F.L.S., Catton Hall, Thirsk.
Telephone: Topcliffe 224.

The 585th Meeting

will be held at

HAWES

V.C. 65

from Saturday, June 1st to
Monday, June 3rd, 1963

HEADQUARTERS.—Burn Brae Guest House, Hawes, Yorkshire. Telephone Hawes 234, Proprietors Mr. and Mrs. J. C. Moore. Dinner, Bed and Breakfast 19/- per day, packed lunches extra.

Other accommodation may be had at the White Hart Hotel, Telephone, Hawes 259 (about 35/- per day).

Accommodation is very limited and members are advised to book without delay. There is a shortage of single rooms and members are asked to be prepared to share wherever possible.

PREVIOUS VISITS.—The Union has visited Hawes and district on several occasions, meeting at Askrigg in 1905, 1914 and 1934, Garsdale Head 1929 and 1948 and Hawes in 1884, 1919 and 1936. Reports of these meetings have appeared in *The Naturalist* and if possible should be consulted.

THE AREA.—Hawes is in the upper part of the valley of the River Ure, a little below the junctions of the two main streams, the Ure proper and Widdale Beck.

The very cold spring will have held back the vegetation of the fell tops and most of the time will be spent in the more sheltered valleys. It is proposed to visit Semerwater and Raydale on one day and the disused railway between Hawes and Garsdale

head, but the routes cannot be decided until nearer the date, Upper Wensleydale is well known for its beautiful scenery, the two waterfalls at Askrigg, Mill Gill and Whitfield Gill, which were visited on the Union's last visit in 1936, are good botanically, while Hardraw Force is a noted beauty spot.

Haytime will not have started in the dale and members are asked **not** to walk through meadows. No dogs are allowed and the usual precautions regarding game, gates and fires are to be respected.

TEA AND MEETING.—Afternoon tea with sandwiches, price 3/6, at the Burn Brae, Monday June 3rd, at 5 p.m. followed by the meeting for the presentation of reports and any other business. Members requiring tea, other than those resident at Burn Brae should order it through the Divisional Secretary not later than Saturday, 27th May.

TRANSPORT.—There is no railway service to Hawes. Members wishing to come by public transport will find the bus services fairly good but not very frequent. The United run services from Ripon and Darlington both via Leyburn, but private car is the most reliable form of transport. Members with spare seats who can offer lifts and members needing transport are asked to let the Divisional Secretary know.

MEET.—At Headquarters 10-15 a.m. each day. Burn Brae is on the Aysgarth road a little past the road to the old railway station. Details of the routes taken will be left at Headquarters to allow late comers to join up with the main party.

MAP.—The One Inch Ordnance map. Wensleydale, Sheet 90.

FLOWERING PLANTS (C. M. Rob).—The very cold weather of the early part of the year may well affect the flowering plants of the area. The altitude (about 800 feet) makes Hawes later than the lower part of the dale: nevertheless botanists will find some very interesting and attractive ground.

Semerwater is becoming a favourite resort for sailing and other aquatic sports and there are serious threats to the rich wet pastures around the lake.

Globe-flower (*Trollius europaeus*) grows by Semerwater and in many damp meadows in the district, the plant being sufficiently common to have a local name 'London Bobs,' other plants of the lake side include Mealy Primrose (*Primula farinosa*) Butterwort (*Pinguicula vulgaris*), Bay-leaved and Tea-leaved Willows (*Salix pentandra* and *S. phylicifolia* the latter common throughout the district) and *Polygonum viviparum*. Yellow Water-lily (*Nuphar lutea*) is in the upper part of the River Bain (Yorkshire's shortest river) where it meanders through the grass fields before entering Bain Gill. *Equisetum variegatum* is on rocks near Bainbridge village but is very rare, *Crepis mollis* has been recorded from the west side of Bain Gill but there is no recent record of it still being there.

Caraway (*Carum carvi*) grows on rough ground near Marsett village where it has been established for many years. Rustyback Fern (*Ceterach officinarum*) is plentiful along a short bit of wall on the roadside near Cotterdale End, old records give this fern as frequent in the dale but this is the only recent record. Rock Hutchinsia (*Hornungia petraea*) is on many of the scars of the Yoredale rocks all along the dale. Parsley Fern (*Cryptogramma crispa*) is found near Buttertubs, and Green Spleenwort (*Asplenium viride*) is on many calcareous rocks throughout the district.

Other plants recorded from Hawes and the surrounding countryside include Mountain pansy (*Viola lutea*), Wood Cranesbill (*Geranium sylvaticum*), Masterwort (*Peucedanum ostruthium*) Meadow Saxifrage (*Saxifraga granulata*), Cloudberry (*Rubus chamaemorus*), *Ribes alpinum* and *R. spicatum*, Mossy Saxifrage (*Saxifraga hypnoides*) Pink Stoncrop (*Sedum villosum*) and Wood Forget-me-not (*Myosotis sylvatica*).

Wood Vetch (*Vicia sylvatica*) and Yellow Saxifrage (*Saxifraga aizoides*) have been seen in Whitfield Gill in recent years, but Baneberry (*Actaea spicata*) which was noted when the Union visited Hawes in 1884, has not been seen for many years. The alien New Zealand Willowherb (*Epilobium nerterioides*) was seen near Mill Gill in 1954.

Four 10 Km. squares meet near Hawes and care must be taken when recording plants to check the actual square. All the squares have been fairly well worked but there are a number of obvious gaps in them all, especially in 34/88 Hawes, Gale, Dodd Fell and Fleet Moss for which only 268 species are on the master card.

BRYOLOGY (G. A. Shaw).—Bryological reports on the Hawes area are given in *The Naturalist* for 1919 and 1936. By far the best list of mosses is that given by the

late Dr. T. H. B. Bedford for the 1936 meeting, where the names of 108 species are given. The hepatics of the area seem to have been somewhat neglected. Dr. Bedford remarks particularly on the abundance of *Leucodon sciuroides* on the upper Wensleydale walls. *Distichium inclinatum* occurs on tracks on Dodd Fell, and *Pseudoleskea catenulata* is fairly plentiful in the same area, whilst on the summit peat *Dicranodontium denudatum* occurs.

Other interesting species which occur include: *Polytrichum alpinum*, *Eucladium verticillatum*, *Amphidium mougeotii*, *Splachnum ovatum*, *Funaria muehlenbergii*, *Bartramia ithyphylla*, *Breutelia chrysocoma*, *Plagiobryum zierii*, *Mnium orthorrhynchum*, *Hookeria lucens*, *Thuidium philiberti*, *Orthothecium intricatum* and var. *abbreviatum*, and *Hypnum patenitiae*. Nomenclature according to the Check List of Richards and Wallace, 1950.

ORNITHOLOGY (R. Chislett).—Hawes is the centre of upper Wensleydale and of a great area of hills and moors, grassy and heathery, with interesting dales, both broad and narrow.

With the Widdale and Duerly becks joining the Ure at Hawes there should be no lack of streamside birds—Dipper, Sandpiper, two Gulls, two species of Wagtail and the third (Yellow) present in the fields, Sand-martin, Redshank, and Oystercatcher.

All the moorland species are in the area; two species of hawk should be noted, with the Buzzard a possibility, as is the Dunlin. Woodlands are small and somewhat scarce but each one will be well worth exploration; I have had Woodcock, Redstart, Pied Flycatcher, Spotted Flycatcher and Nuthatch reported recently, as well as Corncrake in the meadows. A good list of birds should be obtained.

ENTOMOLOGY (J. Flint).—The most profitable areas are likely to be the areas of peat on the fell tops, and the streams and their banks at lower altitudes where the bed is stony and unstable and patches of shingle occur. Many upland species could be found. Among the beetles *Feronia adstricta* (Esch.), *Patrobis assimilis* Chaud., *Arpedium brachypterum* (Grav.), *Aphodius lapponum* (Gyll.) and *Cantharis paludosa* Fall. are to be found on the fell tops, *Nebria gyllenhali* Duft., *Quedius auricomus* Kies., *Dianous coerulescens* (Gyll.) and *Stenus guynemeri* du V. among the mosses and shingle along the banks of the streams, and *Ochthebius exsculptus* Germ., *Elmis maugei* s. *megerlei* a. *aenea* Muell., and *Latelmis volckmari* (Pz.) in the streams. No bugs are recorded from Hawes, but the montane *Arctocoris carinata* (Sahl.) has been recorded from Upper Wensleydale and the upland *Callicorixa wollastoni* (D. & S.) is likely to be found with it in the high peat pools. Mr. J. M. Brown noted some interesting bugs from nearby Semerdale which are likely to be found around Hawes. These included *Cryptostemma alienum* H.-S., found among shingle beside streams, *Salda littoralis* (L.) and *Saldula scotica* (Curt.)

Nymphs of mayflies and stoneflies are abundant in the streams. Little work appears to have been done on Hymenoptera, and only three sawflies have been reported, *Abia sericea* (L.) *Dolerus liogaster* Thoms., and *Monophadnus pallens* Gmel. The only notable butterfly is the Brown Argus (*Aricia agestis* (Schiff.)) and as this should be in flight it would be interesting to have confirmation of its continued existence here. Since records of all insects are generally scarce from this part of the county, full lists of species taken are desirable and I should be grateful for any specimens (mounted or unmounted) for determination if localities are given.

Sectional Meetings

ENTOMOLOGICAL SECTION

Sunday, 5th May. Field Meeting, Hagg Wood, Colton, near Tadcaster. Meet at the Oasis Garage, 11.0 a.m. This is about three miles east of Tadcaster on the A.64. York bus from Leeds, 10-15 a.m. Leeds bus from York, 10-30 a.m.

Mr. and Mrs. K. G. Payne of Tadcaster invite those members attending this meeting to join them for afternoon tea.

CONCHOLOGICAL SECTION

FIELD MEETINGS

Saturday, 20th April. Grantley Hall near Ripon.

Friday, May 10th. Derwent Valley.

BRYOLOGICAL SECTION

Preliminary Notice.—A joint meeting of the Bryological and Conchological Sections will be held at Malham Tarn House, September 21st to 23rd, 1963. The party is limited to 20. Bookings should be made in good time with the Warden (P. F. Holmes, Esq., M.A.) Malham Tarn Field Centre, near Settle, Yorkshire. Bed sheets, pillow cases and towels must be brought, and a booking fee of £2 is payable in advance.

FLOWERING PLANT SECTION

A joint meeting of the Section and the Botanical Society of the British Isles will be held from Friday 26th, July to Sunday, 28th July, to work the Bilsdale 10 Km. square, 44/59 which is under recorded, and to visit other places of botanical interest on the western escarpment of the Hambleton Hills.

The party will stay in Thirsk where there are two good hotels, the Golden Fleece, a Trust house and the Three Tuns. Further details may be obtained from the Hon. Excursion Secretary, Miss C. M. Rob.

MYCOLOGICAL SECTION

Thursday to Tuesday, 2nd to 7th May. Spring Foray, Austwick. For booking details, please contact Section Secretary.

Members are reminded that Subscriptions for 1963 are now due and should be forwarded without delay to Mr. Shaw at the address given above. (Full Members, £1 Family, Associate Members, 5/-).

Yorkshire Naturalists' Union.

President:

W. A. SLEDGE, Ph.D., B.Sc.

Hon. Treasurer:

M. M. SAYER, Esq., 10 The Gardens, Heath Road, Halifax.

Assistant Hon. Treasurer and Membership Secretary:

G. A. SHAW, Esq., The Department of Botany, The University, Leeds, 2.

Hon. General Secretary:

R. S. ATKINSON, Esq., F.Z.S., 46 White Hill Avenue, Barnsley.

Divisional Secretary:

Miss E. CRACKLES, 143 Holmgarth Drive, Bellfield Avenue, Hull.

The 586th Meeting

WILL BE HELD AT

LITTLE WEIGHTON

V.C. 61

On SATURDAY, JUNE 15th, 1963

HEADQUARTERS.—The Black Horse Inn, Little Weighton. Afternoon Tea, 2/6. **Tea should be ordered by post-card, a week in advance.** Write to Mrs. Whittaker, The Black Horse Inn, Little Weighton, by June 8th. (Telephone: Kirkella 58172).

TRAVEL.—The Risby Estate is not easily accessible except by road. Members without cars but able to reach Beverley or Hull are asked to contact the Divisional Secretary. For details of bus services to Beverley or Hull, write to the East Yorkshire Motor Services Ltd., Anlaby Road, Hull.

MEETING PLACE AND ROUTE.—Take the Beverley-Willerby-Hessle Rd. (A 164) and turn onto the Risby-Little Weighton Road one mile north of Skidby and meet at the junction of this road with the Bentley secondary road, just west of Fishpond Wood, Risby, at 10-30 a.m.

A message concerning the proposed route will be left at the game-keeper's cottage: take farm track east of the A 164 which enters this road opposite to the road to Bentley.

MAPS.—The area is covered by the Ordnance Survey one inch Sheet No. 99: Little Weighton is on Sheet 98.

PERMISSION.—Our sincere thanks are due to Captain A. Wilson-Filmer and the head keeper, Mr. F. Childs, for permission to visit the Risby Estates.

Every care must be taken not to disturb game. No dogs are allowed and gates must not be left open. Membership cards should be carried.

THE AREA.—At the edge of the chalk wolds, the Risby Estates form an interesting area and the vegetation in the vicinity of Berkhill Wood suggests that here may be the site of an old lake.

FLOWERING PLANTS.—(E. Crackles). Species recorded for the Berkhill wood area include Slender St. John's Wort (*Hypericum pulchrum*), Yellow Pimpernel (*Lysimachia nemorum*), Marsh Cudweed (*Gnaphalium uliginosum*), Herb Paris (*Paris quadrifolia*), Greater Woodrush (*Luzula maxima*), *Carex remota*, *C. ovalis*, *C. pallescens*, Purple Smallreed (*Calamagrostis canescens*) and Wood Millet (*Milium effusum*).

For the Fishpond Wood area plants noted include: Opposite-leaved Golden Saxifrage (*Chrysosplenium oppositifolium*), Common Speedwell (*Veronica officinalis*), Wood Speedwell (*V. montana*), Sweet Flag (*Acorus calamus*) and *Carex pseudocyperus*. Dyer's Greenweed (*Genista anglica*) was recorded for a field just east of Fishpond Wood in 1957. On a grassy bank west of this wood, grows Lousewort (*Pedicularis sylvatica*) and Heath Spotted Orchid (*Dactylorhiza maculata*).

ORNITHOLOGY (J. T. Lee).—The Risby Estate, roughly bounded by the villages of Walkington, Little Weighton, Skidby, Cottingham and Woodmansey, contains three woodland 'archipelagos' surrounded by agricultural land. The series of woods running north from Risby Fishpond Wood to Walkington are interesting ornithologically and the most picturesque on the estate, as they are situated in and around shallow valleys.

The three commoner finches are present with Goldfinch, Bullfinch and particularly Lesser Redpoll well represented. Great Spotted and Green Woodpecker, Goldcrest, Stock Dove, Tree Creeper, Willow Tit, Woodcock and Tree Sparrow as well as the usual resident woodland birds, breed there annually.

It is less easy to be emphatic about the summer visitors, Chiffchaff and Tree-Pipit are occasionally noted. Lesser Whitethroat, although fairly common in 1962, cannot usually be so regarded in most years. Perhaps the Y.N.U. visit may succeed in drawing a clear picture of the status of these birds in 1963. Willow Warbler, Whitethroat, Spotted Flycatcher, Garden Warbler, Blackcap, Turtle Dove and (in dry brambly situations) Sedge Warbler are regular breeders.

Strict keeping has caused Jay, Magpie and Sparrow Hawk to become virtually unknown, though Kestrel, Little Owl and Tawny Owl are regularly seen.

In the surrounding fields Corn Bunting is common and Red-legged Partridge a possible. Between Risby and Little Weighton flocks of non-breeding Golden Plover are usually present.

(Both Lesser-Spotted Woodpecker and Hawfinch were formerly known to be in Fishpond Wood and may still be present. E.C.)

LEPIDOPTERA (D. Wade).—In the Berkhill Wood area, the only species particularly worthy of mention are the Holly Blue Butterfly and the Pale Tussock Moth. Other moths noted include the Yellow-tail and the Short-cloaked Moth. In Risby Park the larvae of both Eyed Hawk and Poplar Hawk Moths have been found.

TEA AND MEETING.—Tea at the Black Horse Inn, Little Weighton, at 4.30 p.m. will be followed by a short meeting for the presentation of reports of the day's work and the election of new members.

Yorkshire Naturalists' Union.

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W. A. SLEDGE, Ph.D., B.Sc.

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Hon. General Secretary:

R. S. ATKINSON, Esq., F.Z.S., 46 White Hill Avenue, Barnsley.

Divisional Secretary:

I. C. LAWRENCE, Esq., 57 The Oval, Brookfield, Middlesbrough
Telephone: Brookfield 366.

The 587th Meeting

WILL BE HELD AT

WEST AYTON for LANGDALE END V.C. 62

On SATURDAY, JUNE 29th, 1963

HEADQUARTERS.—Beech House, West Ayton, Scarborough (Mrs. S. Porter). Tea, Ham & Tongue with Sweet, 7/6, Chicken & Ham, 8/6. Teas must be booked in advance, not later than 22nd June, direct to Mrs. Porter.

Tea will be at 5 p.m. followed by the meeting to receive reports and any other business.

MEET.—The party will meet in West Ayton Village, on the main road (A. 170) at 10-15 a.m. Those travelling by car from Whitby or Scarborough district may wish to go straight to Langdale End Village for 10-30 a.m., Those using the A. 64 York to Scarborough road should take the A.170 at Seamer for West Ayton.

TRANSPORT.—The United Service 128 (Ripon, Scarborough) passes through West Ayton. Transport from here for members without cars will be arranged, if they get in touch with the Divisional Secretary in good time. Travellers from Hull and Whitby should take the United 128 to West Ayton. The summer service is fairly frequent.

MAP.—Ordnance Survey No. 93, one inch covers the area. Grid reference for Langdale End, 44, 939913.

AREA TO BE VISITED.—Langdale End village, from where the party will operate, is situated in some very pleasant country to the north-west of Scarborough and just to the south of the North Yorkshire moors where rises the River Derwent.

The southerly course of this river towards Langdale End is through a very beautiful wooded glen, after which it winds its way into the calcareous range of hills that are so famous in this part of Yorkshire. To the west of the village there are several streams that make their way through similarly wooded glens to join the main stream. There is such a wealth of country to explore that only a small area can be covered in a single day.

ORNITHOLOGY. (R. Chislett).—The list of birds should be a long one and should include Flycatchers, Wood and other warblers, Wagtails, Sandpipers, and possibly Kingfisher. Nightjars are known in the area. Goldfinches are probable, some of the usual moorland species should be seen.

Mr. Chislett adds 'How will our resident birds have withstood the recent winter?' The effects of such a winter may be long; to record its effect is a naturalist's job. After early 1947, it was years before Song Thrushes began again to approach equality with Blackbirds and from some areas Wrens and Goldcrests disappeared.

BOTANY (C. M. Rob).—Langdale End is in one of the underworked squares, and only about 260 species have so far been mapped. The number of common plants absent from the master card is proof that there is a lot of work for the botany section to do. The Forestry Commission have taken over and planted large tracts of ground in the area, and forests of many ages may be seen. Dwarf Cornel (*Chamaepericlymenum suecicum*) has been known at Crosscliff near Bickley since 1835, the most southerly station for this plant in the British Isles. Other plants include Dame's Violet (*Hesperis matronalis*) Knotted Spurry (*Sagina nodosa*), Trailing St. John's Wort (*Hypericum humifusum*); Marsh St. John's Wort (*H. elodes*) was found in a bog near the Falcon Inn in this 10 Km. square and may occur in the more acid higher parts of the glen in open country. Musk Mallow (*Malva moschata*) is an old record requiring refinding. Small-leaved Lime (*Tilia cordata*) has been recorded from High Langdale where it is said to be rare, although planted in most places in Yorkshire. J. G. Baker considered this tree to be a native of some remote valleys in the Eastern Moorlands.

Petty Whin (*Genista anglica*) has been found near the Falcon Inn, Marsh Cinquefoil (*Potentilla palustre*) grows at Hilla Green and is no doubt elsewhere in the area, two Winter-greens (*Pyrola minor* and *P. media*) are both given for the district and although the former has not been seen for many years, the latter is known still to occur at Silpho Moor, a few miles from Langdale End. Bog Pimpernel (*Anagallis tenella*), Field Gentian (*Gentianella campestris*), Eyebright (*Euphrasia micrantha*), Wild Basil (*Clinopodium vulgare*) the hybrid Woundwort (*Stachys* × *ambigua*), Bog Myrtle (*Myrica gale*), Dwarf Willow (*Salix repens*), Aspen (*Populus tremula*), Pyramid Orchid (*Anacamptis pyramidalis*) Green-winged Orchid (*Orchis morio*), Fragrant Orchis (*Gymnadenia conopsea*) both the Lesser and Greater Butterfly Orchids (*Plantanthera bifolia* and *P. chlorantha*) Bog Rush (*Schoenus nigricans*) and lesser Club Moss (*Selaginella selaginoides*) are given for the area in the Natural History of Scarborough.

Members attending the meeting would be advised to consult this work which gives a detailed account of the Natural History of the Scarborough district.

ENTOMOLOGY (J. H. Flint).—This is an exceptionally good district for insects both in the valley and on the moors above, and workers in any order should find plenty of interest. The Lepidoptera and Coleoptera have been well worked, other orders less so, but the beautiful dragonfly *Agrius virgo* (L.) is known to be common on the Derwent here and *Cordulegaster boltonii* (Don.) occurs along the moorland streams. Colonies of the wood ant *Formica lugubris* Zett. are found on Barns Cliff where *Formicoxenus nitidulus* (Nyl.) occurs in its nests.

Butterflies recorded include Large Heath, Duke of Burgundy Fritillary, Holly Blue, Green Hairstreak and Dingy Skipper; the Pearl-bordered and Small Pearl-bordered Fritillaries are usually to be found in the area. This must be the only place in Yorkshire where six species of the large ground beetles *Carabus* have been reported, *monilis* F., *arvensis* Hbst., *granulatus* L., *nemoralis* Muell., *glabratus* Pk., and *nitens* L. Other conspicuous beetles include *Nebria glynnhali* Schoen. (and the reddish form *rufescens* Stroem on High Langdale), *Leistus spinibarbis* (F.), *Feronia lepida* Leske, *Cymindis vaporariorum* (L.) *Zylodrepa quadripunctata* (L.), *Staphylinus caesarius* Ced., *S. erythropterus* L., *Cantharis abdominalis* v. *cyanea* (Curt.), *Geotrupes vernalis* (L.), *Cetonia aurata* (L.), *Dorcus parallelipipedus* (L.), and *Clytra quadripunctata* (L.)

Entomologists should consult *The Natural History of the Scarborough District*, Vol. 2, Zoology, edited by G. B. Walsh and F. C. Rimington, 1956, for an up-to-date account which also shows where further investigation would be useful.

PREVIOUS VISITS.—Langdale End has not previously been visited by the Union although a number of places nearby figure in the list of meetings in *Naturalist* 1961, p. 170. These include Hackness and the Dales to the east, 1936; Wykeham, 1901, and 1945; and Hayburn Wyke 1891 and 1927. It is hoped on this occasion to visit those areas which appear to have been neglected in the past, probably owing to the difficulty of access.

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Divisional Secretary :

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Local Secretary :

R. CROSSLEY, Esq., 7 Hunston Avenue, Quarmby, Huddersfield.

The 588th Meeting

WILL BE HELD AT

MELTHAM

V.C. 63

On SUNDAY, JULY 7th, 1963

HEADQUARTERS.—Swan Inn, Market Place, Meltham, Nr. Huddersfield.

TRAVEL ARRANGEMENTS.—Buses leave Huddersfield bus station (Upper-head Row) for Meltham at 10-27, 11-27, 12-27 a.m. and 1-27 p.m. and thereafter operate a 20 minute service.

As public services from neighbouring towns to Huddersfield on Sunday mornings are very poor, members using their own cars who have any seats to spare are asked to contact the Local Secretary who will put them in touch with members requiring lifts.

MAP.—One inch Ordnance Survey, Sheet 102, Huddersfield.

MEETING PLACE.—Headquarters at 11.0 a.m. For members unable to meet at that time, a second party will assemble at 12-o'clock and will then be taken to join the main party.

THE AREA.—Meltham lies towards the head of a pleasant valley about six miles south-west of Huddersfield. It is situated very close to some fine moorland country and the rugged slopes of West Nab rising to 1,640 ft. dominate the district. There are many interesting areas near at hand, but it is proposed to pay special attention to Royd Edge Clough, the entrance to which is only ten minutes walk from Headquarters. Royd Edge Clough is a good example of a high level, steep-sided valley on the Millstone Grits, with a variety of habitats which should be of interest to all sections. There are vast bracken covered slopes and rocky outcrops, marshy fields, and many small *Sphagnum* bogs, a small area of deciduous woodland, a fine moorland

stream and, beyond the head of the clough, a massive area of bracken and rough grassland rising to the peat covered summit plateau.

Please Note: The rights of the farmers (on whose land we shall be working) must be respected, no fences or walls damaged, **No Fires**, and **No Dogs**. (If any dogs do appear on these sheep moors they are likely to be shot on sight).

ORNITHOLOGY (T. D. Bisiker).—The area is one of contrasts. In and around the built-up area the usual common garden birds will be seen. From the built-up area the ground rises to *c.* 1,600 ft. The best and most interesting approach would be by Royd Edge Clough. In the clough and in neighbouring fields the following birds may be seen—Whinchat, Linnet, Reed-Bunting, Willow-Warbler, Robin, Dunnock, Wren, Redstart, Wheatear, Blackbird, Ring-Ousel, Song Thrush, Pied Wagtail, Swallow, Swift, Cuckoo, Magpie, Carrion Crow, Rook, Kestrel, Little Owl and Moorhen. The more energetic ones who scale the heights should see Skylark, Meadow-Pipit, Twite, Peewit, Curlew, Golden Plover, Grouse and possibly Dunlin in the wetter parts, Merlin and Short-eared Owl. Gulls should also be seen.

FLOWERING PLANTS. (R. Crossley).—The most interesting plant of Royd Edge Clough is undoubtedly *Wahlenbergia hederacea* (Ivy Bellflower) which was first discovered in 1960. This is one of the few localities for the species in V.C. 63 and its discovery has stimulated interest in the vegetation of the clough amongst local botanists. The typical plants include many clough and moorland species such as *Vaccinium oxycoccos* (Cranberry), *Myosotis secunda* (Water Forget-me-not) and *Narthecium ossifragum* (Bog Asphodel), and on the moor beyond *Dactylorhiza maculata* subsp. *ericetorum* (Heath spotted Orchid). There is a pleasing variety of sedges including *Carex laevigata*, *C. binervis*, *C. echinata* and *C. pulicaris*. Amongst the ferns are many fine specimens of *Dryopteris borreeri* (Golden male fern), and in 1962 a small amount of *Thelypteris phegopteris* (Beech fern) was discovered. As the area to be explored lies within the recording district of Huddersfield plant mapping scheme organised jointly by the Tolson Memorial Museum and botanists of the two local societies, plant lists, including common species, will be welcomed after the meeting.

ENTOMOLOGY (E. W. Aubrook, F.R.E.S.).—The area of the excursion was a favourite collecting ground of the late G. T. Porritt; the following moths, represented from the Meltham and Royd Edge in his collection at the Tolson Memorial Museum, and associated with ling or bilberry, may still be expected to occur and to be observed, either in flight or at rest, during daylight hours; *Anarta myrtilli* (Beautiful Yellow Underwing), *Phragmatobia fuliginosa* (Ruby Tiger), *Sterrhia inornata* (Plain Wave), *Pylarge fumata* (Smoky Wave), *Eupithecia castigata* (Grey Pug), *E. nanata* (Narrow-winged Pug), *Hydriomena furcata* (July Highflyer), *Dysstroma citrata* (Dark Marbled Carpet), *Entephora caesiata* (Grey Scalloped Bar), *Lasiocampa quercus* (Northern Eggar). The var. *confinis* of *Orygia antiqua* (Vapourer) has been bred from larvae taken in the district.

Of the Coleoptera, the splendid *Carabus nitens* has been recorded and itself would make the excursion worthwhile to an entomologist. *Bembidion redtenbacheri* occurs along the stream sides, and the spotted rove-beetle, *Dianous caeruleus*, may be found in wet moss. The click-beetles *Corymbites cupreus* and *C. pectinicornis* should be seen on the moor, and *Aphodius lapponum* and *A. tenellus* should be found in sheep-droppings. The larva-feeding Silphid, *Xylodrepa quadripunctata* has been taken in the area, and the small bloody-nosed beetle, *Timarcha goettingensis*, occurs in association with bilberry. The metallic *Plateumaris discolor* may be found in the vicinity of *Eriophorum* or *Sphagnum*.

The district has not been worked systematically for the smaller Coleoptera, and records of these would be of value.

As the distribution of reptiles and amphibia in V.C. 63 is insufficiently known, any records in this section will be appreciated.

TEA AND MEETING.—Tea at 4.30 p.m. Meat and Salad Tea 5/- (Sandwiches can also be provided). Will members requiring the set tea or sandwiches please notify the Local Secretary (tel. Milnsbridge 2373) not later than July 2nd, 1963. Cups of tea will be available for those who take their own food. After tea there will be a short meeting for reports of the day's work, and for the election of new members.

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Divisional Secretary:

Mrs. A. C. M. DUNCAN, Bransty, Rupert Road, Ilkley.
Telephone: Ilkley 683.

Local Secretary:

Mrs. K. G. PAYNE, Corylus, Hagg Lane, Colton, Tadcaster.
Telephone: Appleton Roebuck 217.

The 589th Meeting

WILL BE HELD AT

YORK

for ASKHAM BOG

V.C. 64

From Saturday, July 20th to
Sunday, July 21st, 1963

MEETING PLACE.—At the entrance to the Bog at 10-30 a.m. each day. Take packed lunch. Messages will be left in the shelter at the entrance. Askham Bog is to the right of the York-Tadcaster-Leeds road, A 64, at the start of the dual carriageway. There is room to park cars. There is a 20 minute bus service in each direction.

HOTELS IN YORK.—Abbey Park Hotel, The Mount (B. & B.) 32/6 to 37/6; Chase Hotel, Dringhouses (B. & B. 35/- to 40/-); Elmbank Hotel, The Mount (B. & B. 27/6); Young's Hotel, 25 High Petergate (B. & B. 25/- to 30/-); St. Mary's Hotel, St. Mary's, Bootham (B. & B. 22/6 to 29/6).

A full list of accommodation may be obtained from the City of York Information Service, Central Library, Museum Street, York.

On **Saturday evening** members staying in York may like to have dinner together at Young's Hotel. This should be ordered direct.

TEA AND MEETING.—Tea will be provided on Sunday at 4 p.m. at the **Institute Hall, Copmanthorpe** at 3/6 each. This must be ordered through the Local Secretary (see above) not later than Saturday, July 13th. Lifts will be arranged for members without cars.

SURVEY OF THE BOG.—Both days will be spent at the Bog so that a good start may be made on an up-to-date survey.

ASKHAM BOG

Askham Bog lies in the south-west corner of an area of flat land between ridges formed by glacial deposits. It is about a mile and quarter in length, and nowhere more than a quarter of a mile wide, and is valuable as a relic of the former 'fen' vegetation which covered large areas of Yorkshire after glaciation.

It has developed from open water, through reed swamp and willow carr to swamp woodland and there are small areas showing the early stages of Sphagnum Bog.

The Bog is surrounded by ditches on all sides and three ditches run through the bog connecting drainage channels, thus dividing the bog into four areas. A raised causeway forms a further dividing line and gives two sections to the west known as Far Wood and Gilson's Bog and two to the east known as Middle Wood and Near Wood.

There is now little open water apart from the ditches and a small pond dug out by the Nature Conservancy Corps in 1959. There are small patches of reed swamp and the swamp woodland is well represented in the western end of the bog.

The p.H. value of water and soil samples from different areas varies from about 5.5 to 7.5, the outer ditches tending to be more alkaline.

The aim of the Yorkshire Naturalists Trust is to maintain the Bog in its present condition and to allow it to develop as naturally as possible by trying to maintain the water level which has a tendency to become lower due to agricultural drainage and adjacent developments.

The Trust look forward to the visit of the Y.N.U. and hope that as a result of their visit there will be an up-to-date comprehensive record of the findings in the various sections.

FLOWERING PLANTS (Dr. W. A. Sledge).—The ditches surrounding the wooded part of the Bog and the adjacent marshy ground are rich in species, the following being amongst the more notable: *Thalictrum flavum*, *Ranunculus lingua*, *Cardamine amara*, *Viola canina*, *Stellaria palustris*, *Rhamnus catharticus*, *Frangula alnus*, *Potentilla palustris*, *Myriophyllum alternifolium*, *Parnassia palustris*, *Apium inundatum*, *Oenanthe fistulosa*, *O. aquatica*, *Menyanthes trifoliata*, *Pedicularis palustris*, *Mentha sativa*, *Myosotis secunda*, *Hottonia palustris*, *Lysimachia vulgaris*, *Anagallis tenella*, *Samolus valerandi*, *Rumex hydrolapathum*, *Polygonum mite*, *Myrica gale*, *Salix repens*, *Orchis incarnata*, *Sparganium minimum*, *Lemna polyrrhiza*, *L. trisulca*, *Iris pseudacorus*, *Hydrocharis morsus-ranae*, *Juncus subnodulosus*, *Carex acutiformis*, *C. riparia*, *C. vesicaria*, *C. hostiana*, *C. pallescens*, *C. acuta*, *C. elata*, *C. appropinquata*, *C. disticha* and *Calamagrostis canescens*.

The wooded part of the Bog consists of fen woodland with Birch, Alder, Oak, Willow (*S. cinerea*), Alder Buckthorn (*Frangula alnus*) and brambles (*Rubus suberectus* and *R. plicatus*). Many of the species listed above also occur within the bog, especially in more open parts, but the ground vegetation is here primarily of reeds, especially *Phragmites* and *Calamagrostis canescens*, and sedges. *Cladium mariscus* is plentiful in the Near Wood and the rare *Carex elongata* occurs in Far Wood where *Dryopteris spinulosa* and *Thelypteris palustris* are widespread and where *Dryopteris cristata* formerly grew. Several fine plants of Royal Fern, *Osmunda*, still survive. The Bog is particularly rich in Cyperaceae, at least twenty species of *Carex* growing there. *C. lasiocarpa* formerly grew in the site of an open pool at the York end of the Bog, but this region is now so altered that the sedge may have gone. *C. pseudocyperus* is recorded for ditches at the west end of the Bog but I have not seen this species here though it grows in the nearby Hob Moor ponds.

BRYOLOGY (G. A. Shaw).—Reference to reports of previous Y.N.U. meetings at Askham Bog show that no serious attempt was made to prepare a complete list of the bryophytes, and there would appear to be ample scope for further work on these plants. The most interesting hepatics are *Riccia fluitans* and *Ricciocarpus natans* and the present distribution of these should be noted. The first county record of *Mnium rugicum* was made here by William Ingham in 1919.

The following have been noted at various times: *Tetraxis pelucida* (fruiting) *Mnium rugicum*, *Aulacomnium androgynum*, *Climacium dendroides*, *Leptodictyum riparium*, *Amblystegium varium*, *Drepanocladus aduncus*, *Campylium polygamum*, *Acrocladium cordifolium*, *Brachythecium velutinum*, *Pylaisia polyantha*, *Riccia fluitans*, *Ricciocarpus natans*, *Chiloscyphus polyanthos*.

FUNGI (W. G. Bramley).—Owing to the density of the vegetation few of the larger fungi are to be found except after fire. The micro species are plentiful, and no doubt many more are still to be discovered; much depends on being there at the right time. A search should be made to see if aecidia can be found again on *Ranunculus flammula* in the Ride. The Mycological Section has twice visited the Bog and reports can be found in *The Naturalist*, 1945, p. 147, for a Spring Foray and 1962, p. 115 for an Autumn Foray.

ORNITHOLOGY (Dr. E. W. Taylor).—The Birds of Askham Bog, omitting such species as the Hedge Sparrow and Wood Pigeon, the presence of which can be taken for granted.

Those that nest with fair regularity are : Sparrow-Hawk, Kestrel, Turtle Dove, Cuckoo, Tawny Owl, Carrion Crow, Magpie, Jay, Marsh- and Long-tailed Tit, Mistle Thrush, Grasshopper, Reed- and Sedge Warblers, Blackcap, Common and Lesser Whitethroat, Willow-Warbler, Chiffchaff, Tree-Pipit, Linnet, Yellow- and Reed-Bunting.

More occasional visitors are: Little Grebe, Heron, Mallard, Water-Rail, Snipe, Woodcock, Great Spotted Woodpecker, Whinchat, Siskin, Redpoll, Bullfinch.

Rare visitors have been: Bittern (1874), Hen Harrier (1877), White-tailed Eagle (1958), and Wood-Warbler (1799).

LEPIDOPTERA (S. M. Jackson).—If any observing is to be done at dusk, or at night, some interesting moths may be observed. The best of these on the date of the meeting are: *C. senex* (Round-winged Muslin) for which there are no other known localities in Yorkshire today, *A. phragmites* (Fen Wainscot) may be just emerging, though it is a little early. *L. straminea* (Southern Wainscot) and *L. pudorina* (Striped Wainscot) should be well out, but it may be too late for *C. sparsata* (Dentated Pug) which occurs among the Yellow Loosestrife. The Wainscots occur amongst the reeds. By day there are not likely to be many interesting Lepidoptera, but both *P. bicolorata* (Blue-bordered Carpet) and *E. repandaria* (Bordered Beauty) can be disturbed by day, but unless it is an early season may have not yet emerged by July 20th.

There will be other more common species, probably Burnets and perhaps some larvae on birch and other trees.

ENTOMOLOGY (J. H. Flint).—Entomologists are asked to compile as full lists as possible for the report. The most profitable areas lie along the northern edge of the Bog from the central ride eastwards, and in the more open areas towards the railway line. The central ride itself is usually productive. The Bog is well known as a haunt of fenland species, some rarely met with elsewhere. Beetles have been particularly well worked here and coleopterists should consult the list compiled by Dr. J. H. Fidler (*Naturalist* 1949, 101-113) which records 331 species. Many have been added since that date and there are some obvious gaps (*Coccinella 7-punctata* L.). *Dromius sigma* Rossi and *Agabus undulatus* Schrank are well-known species from here and the galls of *Saperda populnea* L. are conspicuous on the stems of *Salix* at the northern end of the central ride and elsewhere. Other species include *Oodes helopioides* F., *Synchlita humeralis* F., and the brilliant musk beetle, *Aromia moschata* L. The most notable bug to be taken here is *Capsus wagneri* Remane, only otherwise known in Britain from Wicken Fen. It should be sought on *Calamagrostis epigejos* and *C. canescens*. *Capsus ater* L. is common here, so careful search must be made for *Wagneri*. *Chilacis typhae* Perris occurs on Typha and *Gerris lateralis* Schummel may

be found among the dense vegetation in the dykes. Butterflies are not remarkable here, but evidence of the continuous existence of the Brimstone would be welcome. Diptera are only too numerous and unwary members are likely to become acquainted with the habits of clegs. The main sawfly season will be over, but such conspicuous species as *Xiphydria camelus* L., *Arge ciliaris* L. and *A. gracilicornis* Klug, besides the more common species of *Tenthredo* are likely to be in evidence.

Should the weather be fine, the sweep net will produce ample material and will be the best method of collecting. July is not the best time for aquatic species, but the pond net should give compensation in the event of rain.

SPIDERS (C. J. Smith).—During July, the Bog supports a population of spiders characteristic of many swampy areas in northern England. Several species of the *Clubionidae* and the *Theridiidae* can be observed, but it is a poor time of the year to obtain mature specimens of most spiders.

Of the rarer species, *Pirata hygrophilus* and *Araneus marmoreus* of the larger types should be found; while of the *Linyphiidae* the following less common species might be taken: *Entelecara omissa*, *Cornicularia kochi*, *Lophocarenum parallelum* and *Mengea warburtoni*.

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